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1960

ANNUAL REPORT

of the

SCHOOL COMMITTEE

and the

SUPERINTENDENT OF SCHOOLS

Cambridge, Massachusetts . . . *"The University City"*

The School Committee

January 1, 1960 to December 31, 1961

Chairman
Mayor Edward A. Crane

Vice Chairman
Mrs. George W. Ogden, Jr.
33 Linnaean Street

William S. Barnes, Esq.
121A Brattle Street

James F. Fitzgerald, Esq.
137 Otis Street

Anthony Galluccio, Esq.
56 Concord Avenue

Daniel J. Hayes, Jr.
23 Norris Street

Gustave M. Solomons
85 Inman Street

Regular Meetings of the School Committee are held on the first and third Tuesdays of each month, except July and August, at the School Committee Office, 1700 Cambridge Street.

Officers of the Cambridge School Committee

Superintendent of Schools
John M. Tobin . . . . . 76 Fresh Pond Lane

Assistant Superintendent of Schools
Edward J. Danehy . . . . . 37 Yerxa Road

Secretary to the Superintendent of Schools
John R. McCarthy . . . . . 198 Rindge Avenue

Secretary to the School Committee and Business Agent
Edward J. O'Connell . . . . . 49 Fayette Stree

Assistant Business Agent
Gerald T. Liston . . . . . 151 Magazine Stree

Chief Custodian
William J. Fitzgerald . . . . . 79 Reservoir Stree

The School Calendar

1960-1961

1st Term

September 8 - December 23, 1960

2nd Term

January 3 - February 17, 1961

3rd Term

February 27 - April 14, 1961

4th Term

April 24 - June 23, 1961

1961-1962

1st Term

September 7 - December 22, 1961

School Holidays

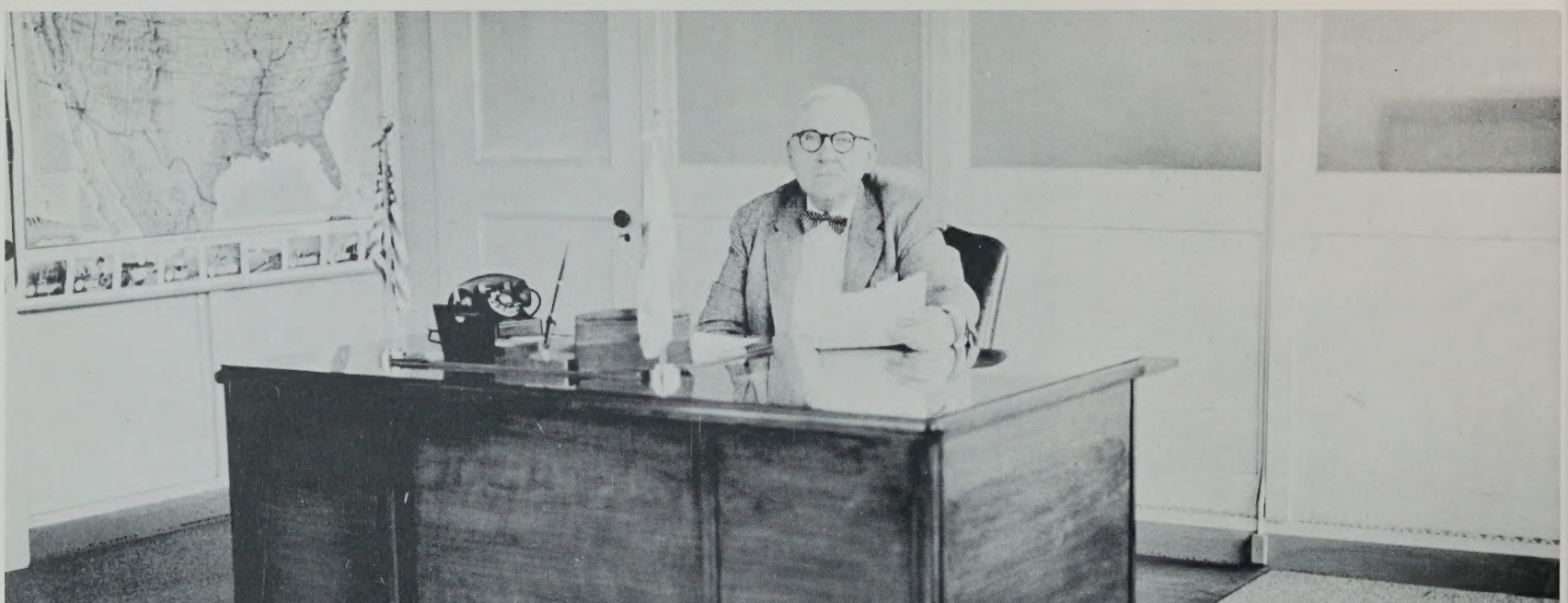
Columbus Day; Armistice Day; Thanksgiving Day and the day following; Washington's Birthday; Good Friday; Patriots' Day; Memorial Day; and the Seventeenth of June. If one of these holidays falls on Sunday, the schools are closed on the following day.

Offices at 1700 Cambridge Street

Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day, excepting Saturday.

Evening Schools

There are two terms of the evening schools. The first term begins on the second Tuesday of October and closes one week previous to the closing of the day schools for the Christmas holidays. The second term begins on the first Tuesday of January, except when that day falls on New Year's Day, in which case it begins on the Thursday following New Year's Day, and continues for at least twenty-five evenings. Vacations and holidays are the same as in the day schools.



To the Honorable, the School Committee:

I submit herewith my sixteenth annual report which is the ninety-third in the series of annual reports by the Superintendent of Schools and the one hundred twenty-first in the printed reports of the School Committee of Cambridge.

There are no places lonelier than uninhabited houses and school buildings during vacation times. Yet, it is not the more presence of people which transforms a house into a home, or a school building into a school. It is, rather, the quality of the human relationships therein which works these miracles. Nevertheless, it is true that the quality of these relationships may be enhanced by the facilities available in a house or school building. And it is this distinct possibility, rather than the novelty of mere newness, which gives rise to that spirit of eager anticipation with which we cross the threshold into a new house, into a new school building. "Something better lies ahead", we seem to say as we step forward into the future.

"Something better" does lie ahead for the boys and girls who now attend, or later will attend the new Charles G. Harrington School on Donnelly Field in East Cambridge. Better heating, better lighting, better planned and equipped classrooms, better playground and gymnasium facilities, better equipped, better ventilated and more conveniently located toilet rooms, better industrial arts and home economics quarters, better kindergarten rooms and better science laboratories than any amount of remodeling and refurbishing could ever have provided in the old, soon-to-be-abandoned Kelley School and in the already

abandoned Wellington and Gannett Schools. Solely on the basis of the biological principle which positively correlates the optimum physical development of any normal living organism with optimum environmental conditions, the improvements provided in, and by the Charles G. Harrington School are a giant step forward into the future. Cambridge — to epitomize her taxpayers, School Committee and City Council, her Manager, educators, architects and contractors — has made a major contribution to the future prospects of the youth of this area and, thereby, a tremendous investment in the common good and in the general welfare of our city, state and nation.

"Something better lies ahead", too, for all the children at every grade level in every Cambridge public school whether new or old. During 1960, the vast majority of our professional staff members has been involved in in-service training activities concerned with improving the quality of the education offered all our pupils. Staff Committees, for example, completed their work on new Curriculum Guides in Science and Arithmetic for grades one through six. We sponsored a Workshop in Handwriting and others in Curriculum Enrichment in grades four through eight, inclusive. The initial planning for the enrichment Workshops at the secondary school level was completed in 1960 — the Workshops themselves will get under way in February, 1961. The Workshop of the Teachers of our Academically Talented Classes continued and, in the fall, took the form of joint meetings with the members of the several departments of our high schools. But more of this, and more specifically, later — at the moment I wish to examine the new slogan, "Quality Education" which we now find reiterated in the professional literature and at professional meetings. It is a fine sounding phrase and no sane person, surely, would be opposed to what it seems to stand for. But, what — precisely — does it mean?

If this catchword be defined as the name of a new social invention, the rallying cry of a new movement which an educator must join should he wish himself to be classified as "modern" and his school as "good", it is unworthy of the attention of serious people. But if it be defined as a perennial educational philosophy implemented by a program which stresses fundamentals, provides for individual differences, stimulates interests, and challenges abilities however great or meager, it is a meaningful phrase useful in describing the outlook and practice of every dedicated teacher the world has ever known.

And of these latter, Cambridge presently has more than her fair share. In order to capitalize upon the creativity and the enthusiasm of these teachers, to widen their influence and to provide a medium for the exchange of ideas of, and among, all teachers, Workshops for Enrichment of the Curriculum in the Regular Classroom, Grades 4-8, met during the Spring of 1960. Each of the Workshops was led by an Elementary School Master and met for one hour each week for sixteen weeks. Approximately, four sessions each were devoted to discussion of content, materials and methods in Arithmetic, the Language Arts, the Social Studies and Science. Response was enthusiastic; participation eager, unsparing and informed; and, the results I am told — helpful to the participants and rewarding to our pupils. Similarly oriented workshops in the major secondary school subject-matter areas are scheduled for the Spring of 1961. "Something better lies ahead!"

A well attended Penmanship Workshop for Elementary Teachers met during the Fall of 1960 under the direction of our Director of Primary Education, Miss Elizabeth F. Butler. The participants concerned themselves with methods of teaching handwriting and with self improvement for personal use and for speed and legibility on the chalk board. Two major recommendations resulted: one, that Cambridge continue its adoption of the Palmer Method; and, two, that manuscript writing be taught in our first grades throughout the city effective September, 1961, and that the changeover from manuscript to cursive be initiated in grade three.

Strangely enough, or so it seems, the teaching of manuscript writing will not necessarily or even primarily pay future dividends in terms of improved penmanship. The dividends will be more immediate, though long-term, and will be paid off in terms of reducing the dimensions of the initial and monumental task of learning to read. It seems only reasonable that the six year old who must learn to recognize, to distinguish from all other letters, and to write only the two printed forms of the letter f, for example, will learn to read more readily than the six year old who must learn to recognize the two printed forms of f, to write the three common, cursive forms of the letter, and to distinguish all five forms from all the possible printed and cursive forms of the remaining twenty-five letters of the alphabet. This hypothesis has been substantiated by the research and by the experience

of the teachers at the Fletcher and Webster Schools where manuscript has been taught in the primary grades since the September of 1958 and 1959, respectively.

"Something better lies ahead," too, in our teaching of the Social Studies. In October, 1960, the Staff Council on Personnel Development sponsored a Workshop on the Use of Maps and Globes under the direction of Mr. Hugh W. Blanchard of Rand McNally Company. The enthusiastic group of teachers who participated in this learning experience undertook projects which met their individual needs and interests.

Our teachers of the Academically Talented continued their weekly meetings throughout 1960. Last Fall, they met with our secondary schools' department heads and members to plan ahead for the first group from our classes for the Academically Talented to enter our high schools. These have been extremely important meetings that have proven interesting and informative. We are determined that the transition from elementary to high school shall be as smooth as experience, foresight, and advanced planning can make it.

This year the meetings of our very important Orientation Program for Beginning Teachers were scheduled for twice each week. Consequently, the Program was completed before Christmas rather than in May as in previous years. This is, of course, another step forward.

"Something better lies ahead" for our boys and girls in terms of modern language instruction. In January, 1960, the teaching of French as a second language by the aural-oral method was begun in our fourth grades by a teacher already assigned to each building. In September these teachers continued their work with the new fourth grades and two itinerant teachers undertook the work with our fifth grades. Our time allotment schedule calls for one hour of instruction in the language each week plus the Parlons Francais Program on Channel 2. As a readiness program, we are permitting our third grades to observe Channel 2's Parlon Francais I program.

Also dedicated to the realization of the proposition "Something better lies ahead" are the several committees of teachers and administrators which have worked quietly, consistently and effectively over a period of years. Among these, the Staff Council on Personnel Development has guided the in-service training program of our teachers since 1947. Theirs has been a largely thankless assignment added to their regular duties and yet their work has been, in great measure, largely responsible for the high quality of our professional staff.

Our Board of Examiners is another Committee which works quietly and conscientiously. This group composed of teachers and administrators screens and evaluates applicants for teaching positions. This is a simple, brief job description for a complex, time-consuming responsibility upon whose proper discharge the perpetuation of a quality education of our Cambridge boys and girls rises or falls.

Other Committees which also work quietly for the improvement of instruction, the equalization of educational opportunity in Cambridge are our Committee on Elementary Arithmetic, our Committee on Elementary Science, our Committee on the Education of the Academically Talented. The motivation and purpose of each of these committees is best described by the phrase I have made the theme of this report:—"Something better lies ahead." The same purpose will motivate the Committee on the Language Arts in the Elementary Schools, the Committee on the Social Studies in the Elementary Schools, and the Committee on Health Education which I shall soon appoint.

In conclusion, I wish to express publicly to the Assistant Superintendent of Schools, the Headmasters, Directors, Teachers and all other employees my sincere appreciation for their co-operation, assistance and support. I wish, also, to express my deep gratitude to His Honor, the Mayor, and to the Members of the School Committee who have given their time so generously, and who have been so co-operative with their advice and counsel.

Superintendent of Schools

Mr. John M. Tobin, *Superintendent*
1700 Cambridge Street
Cambridge, Massachusetts

Dear Mr. Tobin:

The following is a summary of the Sixth Annual Junior Fire Brigade Program which was held during the month of November:

5,048 fire hazards were corrected, 3,568 by the Public Schools and 1,480 by the Parochial Schools.

On December tenth a reception was attended by parents, school personnel, and 140 students who were chosen for their outstanding Fire Prevention Work. Mayor Edward Crane assisted by Fire Chief Vincent Galvin made the following awards:

1.	Junior Fire Chief	Vivian LoPrete	Haggerty School
2.	Junior Deputy Chief	David Ingram	Agassiz School
3.	Junior Deputy Chief	David Maloney	St. John School
4.	Junior District Fire Chief	Diane Medeiros	Harrington School
5.	Junior District Fire Chief	Patricia Breedy	Houghton School
6.	Junior District Fire Chief	Peter Johnson	St. Peter School
7.	Junior District Fire Chief	Harold Coffey	St. Paul School

8. Honorable Mention Plaque — Blessed Sacrament School, Sister Gerard
Robert McKenna, Marshal
Donna Ciccarelli, Captain
Robert Gallant, Lieutenant

9. Honorable Mention Plaque — Russell School, Mrs. Mary Fabry
John Bruce, Marshal
Mary Arena, Captain
John Killian, Lieutenant
Richard King, Lieutenant

10. Best Class Plaque — Roberts School, Mr. James Gallagher
Anne Zawadski, Marshal
Donna Conroy, Captain
John Simpkins, Lieutenant

11. Best Class Plaque — St. Peter School, Sister Laurice
John Colbert, Marshal
Pauline Johnson, Captain
John Boyle, Lieutenant

Charles H. Cremens
Director, Health and Safety Education

Office of The
SUPERINTENDENT OF SCHOOLS
1700 Cambridge Street
Cambridge 38, Massachusetts
JOHN M. TOBIN, *Superintendent*

December 16, 1959

TO THE MASTERS:

Kindly call the following notice to the attention of the teachers in your building:

"TO TEACHERS OF GRADES FOUR TO EIGHT"

Workshops for teachers of grades 4-8 inclusive, on the subject, "Enrichment in the Regular Classroom," will begin on Monday, February 1, 1960 at three o'clock. *It is hoped that each teacher of these grades will arrange to attend.* Increment credit will be granted to those who meet the requirements of the Staff Council on Personnel Development.

First Meeting . . . February 1, 1960 at three o'clock.

Grade	*Place*	*Leader*
4	Haggerty School	Mrs. Mary R. Mulcahy
5	Russell School	Mrs. William J. Cunningham
6	Peabody School	Mr. Raymond G. D'Arcy
7	Wellington School	Mr. Kenneth W. Goepper
8	Roberts School	Mr. Francis J. Carney

JOHN M. TOBIN, *Superintendent of Schools*

That 5-Hour School Day

What Goes On Told by Cambridge 7th Grader

By JANE ROBERTS

Few persons really know what goes on in the five-hour classroom day. Among these few are teachers, students, and headmasters.

I intend to tell you the daily routine of an advanced seventh grade in Cambridge. We are quite normal children, picked for our ability to learn faster than others. We, also, go into our subjects more completely. Our teachers, Mr. Wayne and Miss Linehan, are better than average.

The class starts at 8:30, but most of us are there early. Our teachers believe in class participation so each of us in turn, start the opening exercises. They include a Scripture reading, The Lord's Prayer, salute to the flag, and the singing of a national song.

The first subject of the day is history — South American independence. Grammar, with parts of speech, follows this. Both will include reviewing the preceding night's homework and an occasional test.

Almost everything is one-half hour long, French is next. For this we have a visiting teacher. She shows us films instead of using books. The film has stick figure pictures with a model voice describing the actions of the figures. We must repeat after the voice in unison.

Next period is usually spelling or grammar not yet finished. But it lasts only 20 minutes and then we are let out for a recess.

At quarter to eleven arithmetic begins. We review homework and usually have an exercise to complete before our lunch period, from 11:30 to 12:30. We are reviewing work done.

This is the usual morning plan except when interruptions are caused by an art, athletics, sewing, or other special teacher.

Afternoons change from day to day. Most often for the first period our lovely voices break into what some people would call song.

Next we have a different teacher for science. We hold a discussion and take notes. We are now studying bacteriology.

Our regular teacher is with us for geography — Southern Asia.

Last period is unpredictable. But, we are supposed to have literature.

That is our day in school. Sometimes it's hectic and sometimes slow, but I certainly like it. This is just a mere outline of what takes place in my Classroom, U.S.A.

Reprinted from Boston Sunday Globe January 8, 1961

ORIENTATION PROGRAM

for

BEGINNING TEACHERS

1960

SEPTEMBER 7

Greetings from the Superintendent . . . . . Dr. John M. Tobin
Superintendent of Schools

A Good Beginning . . . . . Mr. William F. Foley
Master of the Longfellow School

SEPTEMBER 12

School Records . . . . . Mr. William J. Cunningham
Master of the Russell School

SEPTEMBER 14

Report Cards . . . . . Mr. Francis J. Carney
Master of the Roberts School

SEPTEMBER 19

Character Training through Discipline . . . Dr. Gunnar E. Haugh
Master of the Webster School

SEPTEMBER 21

An Attractive Classroom . . . . . Mr. Francis X. Mahoney
Master of the Fletcher School

SEPTEMBER 26

The Use of Supplies . . . . . Mr. John J. Balfe
Master of the Houghton School

SEPTEMBER 28

The Exceptional Child . . . . . Dr. Ruth F. Boland
Director of Pupil Services

OCTOBER 3

The Cambridge School System . . . . . Mr. Edward A. Conley
Master of the Charles G. Harrington School

OCTOBER 5

Teacher Benefits . . . . . Mr. John F. Toomey
Master of the Putnam School

OCTOBER 10

Making Use of Community Resources . . Mr. Kenneth W. Goepper
Master of the Agassiz School

OCTOBER 17

The Guidance of Extra Class Activities . . Mr. Raymond G. D'Arcy
Master of the Peabody School

OCTOBER 19

The Teacher Personality . . . . . Mr. John J. Sullivan
Master of the Thorndike School

OCTOBER 24

The Teaching of Reading . . . . . Mrs. Mary R. Mulcahy
Master of the Haggerty School

OCTOBER 26

The Teaching of Arithmetic . . . . . Mr. Louis N. Fougere
Master of the M. E. Fitzgerald School

OCTOBER 31

The Teaching of Science . . . . . Mr. David E. Hockman
Master of the Morse School

NOVEMBER 2

The Teaching of Penmanship . . . . . Miss Elizabeth F. Butler
Director of Primary Education

NOVEMBER 7

The Music Program . . . . . Dr. James W. Anderson
Director of Music

NOVEMBER 9

The Art Program . . . . . Mr. Joseph L. C. Santoro
Director of Art

NOVEMBER 14

The Health Program . . . . . Mr. Charles H. Cremens
Director of Health and Safety Education

NOVEMBER 16

The Physical Education Program . . . . Mr. Joseph A. Kozlowsky
Director of Physical Education

NOVEMBER 21

Audio Visual Aids . . . . . Mr. Edward F. Hurley
Director of Audio Visual Education

NOVEMBER 28

Meeting the Emotional Need of Children . . Dr. Frank A. Straccia
School Psychiatrist

Gannett School Site

Wellington School

Kelley School

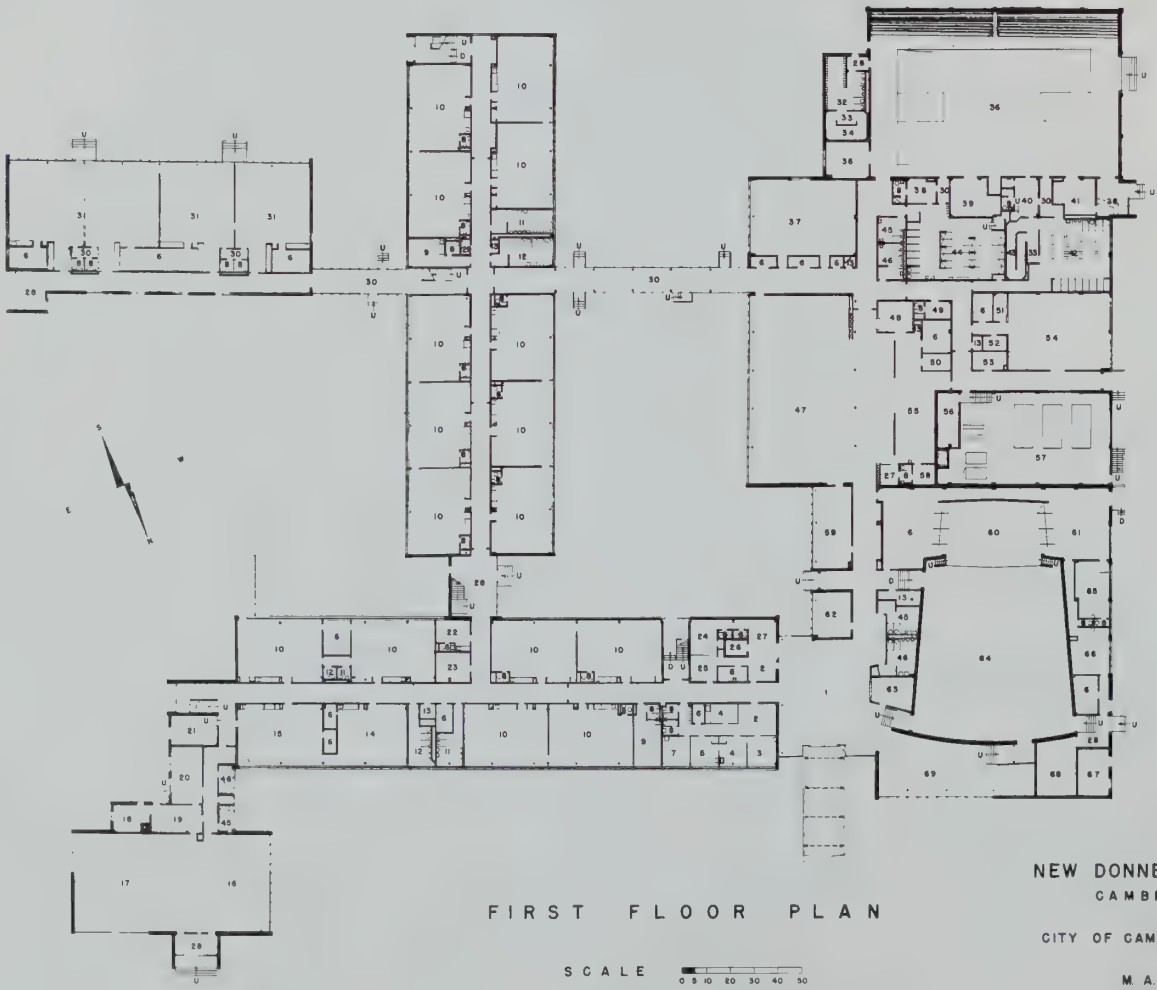
Harrington School Courtyard

1960 Wellington School Graduating Class

Dedication of

CHARLES G. HARRINGTON SCHOOL

CAMBRIDGE, MASS.



LEGEND

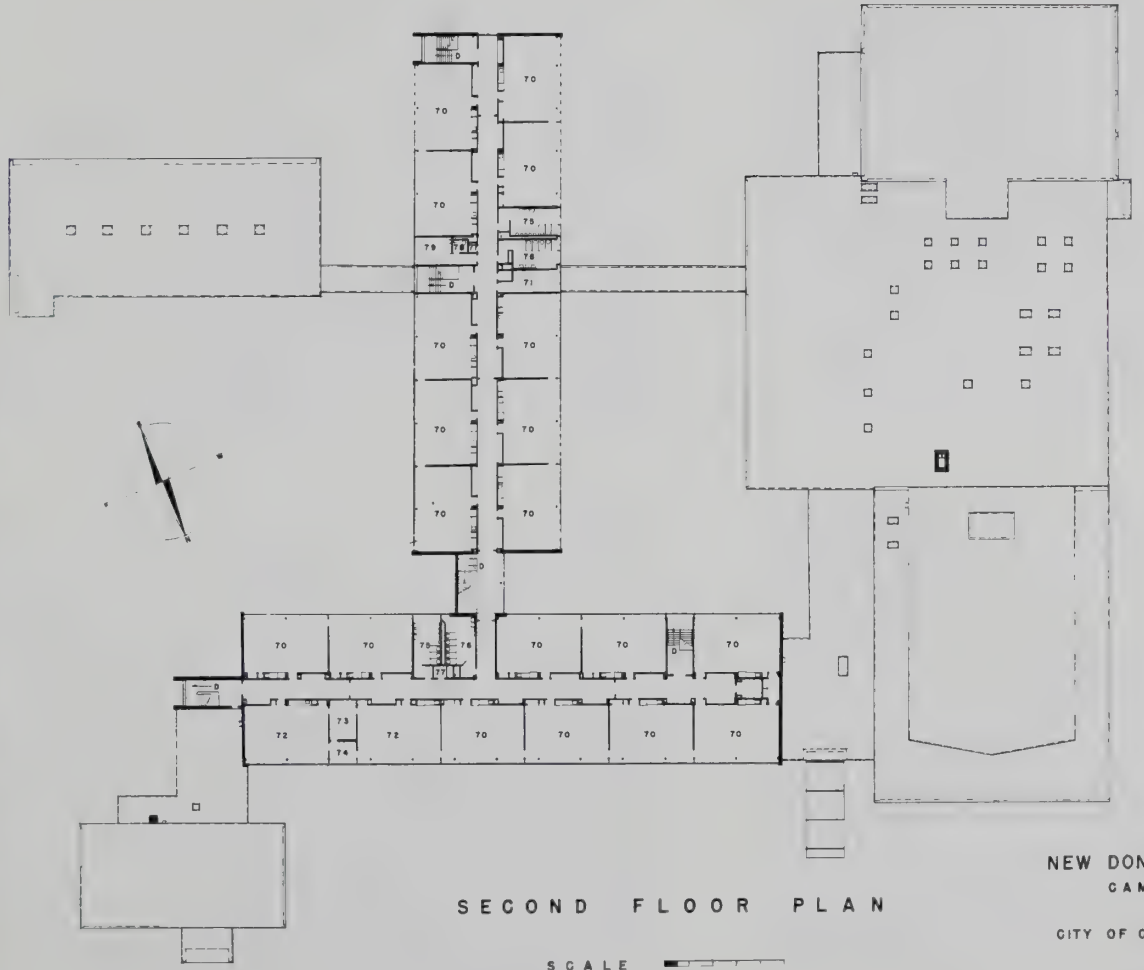
1 LOBBY
2 WAITING
3 NURSE
4 CLINIC
5 DOCTOR
6 STORAGE
7 DENTIST
8 TOILET
9 WOMEN TEACHERS
10 CLASSROOM
11 BOYS TOILET
12 GIRLS TOILET
13 JANITOR
14 REMEDIAL READING ROOM
15 AUDIO-VISUAL ROOM
16 CHILDRENS LIBRARY
17 BRANCH LIBRARY
18 MECHANICAL ROOM
19 WORK ROOM
20 STORY HOUR ROOM
21 TOOL ROOM
22 MEN TEACHERS
23 BOOK STORAGE
24 MASTER
25 INTERVIEW
26 RECORDS
27 OFFICE
28 VESTIBULE
29 RUBBISH CHUTE
30 PASSAGE
31 KINDERGARTEN
32 TEAM ROOM
33 DRYING AREA
34 GANG SHOWER
35 GIRLS GYM STORAGE
36 GYMNASIUM
37 HOMEMAKING
38 FEMALE INSTRUCTOR
39 CORRECTIVE ROOM
40 MALE INSTRUCTOR
41 BOYS GYM STORAGE
42 BOYS LOCKERS
43 PROGRESSIVE SHOWER
44 GIRLS SHOWERS
45 WOMENS TOILET
46 MENS TOILET
47 CAFETERIA
48 DISH WASHING
49 CUSTODIAN
50 WALK-IN REFRIGERATOR
51 PAINT
52 INSTRUCTOR
53 RECEIVING
54 SHOP
55 KITCHEN
56 INCINERATOR
57 BOILER ROOM
58 EMPLOYEES
59 TEACHERS LUNCH
60 STAGE
61 MUSIC & REHEARSAL
62 CONFERENCE
63 TICKETS & COATS
64 AUDITORIUM
65 BOYS DRESSING ROOM
66 GIRLS DRESSING ROOM
67 TRANSFORMER VAULT
68 EMERGENCY GENERATOR ROOM
69 FOYER

FIRST FLOOR PLAN

SCALE 0 5 10 20 30 40 50

NEW DONNELLY FIELD SCHOOL
CAMBRIDGE STREET
FOR THE
CITY OF CAMBRIDGE, MASSACHUSETTS

M. A. DYER COMPANY
ARCHITECTS & ENGINEERS
TWENTY-FOUR SCHOOL STREET
BOSTON 8, MASSACHUSETTS



LEGEND

70 CLASSROOM
71 STORAGE
72 SCIENCE ROOM
73 WORK
74 INSTRUCTOR
75 BOYS TOILET
76 GIRLS TOILET
77 JANITOR
78 TOILET
79 WOMEN TOILET

SECOND FLOOR PLAN

SCALE 0 5 10 20 30 40 50

NEW DONNELLY FIELD SCHOOL
CAMBRIDGE STREET
FOR THE
CITY OF CAMBRIDGE, MASSACHUSETTS

M. A. DYER COMPANY
ARCHITECTS & ENGINEERS
TWENTY-FOUR SCHOOL STREET
BOSTON 8, MASSACHUSETTS

The Charles G. Harrington School on Cambridge Street in the East Cambridge section of the city is the newest structure in the building program inaugurated several years ago to give Cambridge the most modern elementary school facilities for the education of its youth and at the same time to provide large public areas within the buildings for general community use.

This beautiful building designed to provide the children of the East Cambridge area with an environment in which learning can be a happy experience is dedicated to the memory of the late Charles G. Harrington, who, as a teacher, headmaster, and Assistant Superintendent of Schools, devoted 32 years of his life to the welfare and education of Cambridge children.

The Charles G. Harrington School was designed and constructed to provide accommodations for 1150 elementary school pupils from the Kindergarten age through Grade 8. This new structure brings under one roof pupils from the Kelly, Wellington and Gannett Schools.

The site chosen is centrally located to accommodate pupils who formerly attended the three schools and, at the same time, provides greater recreational areas immediately adjacent to the school.

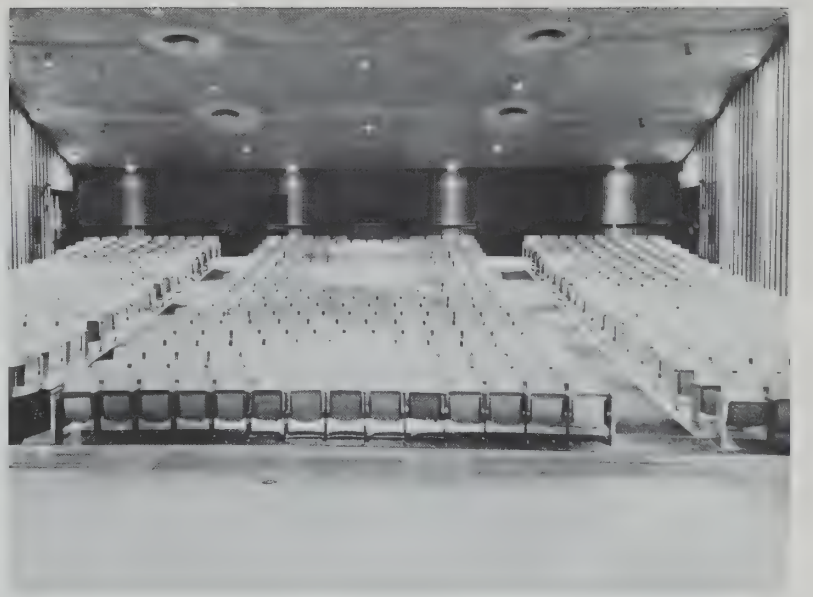
The School Building occupies 113,000 square feet. The school building and site development were designed by M. A. Dyer Company, internationally known architects and engineers, John Bowen Company, Inc., was the general building contractor. Construction and equipment cost will approximate $2,500,000.

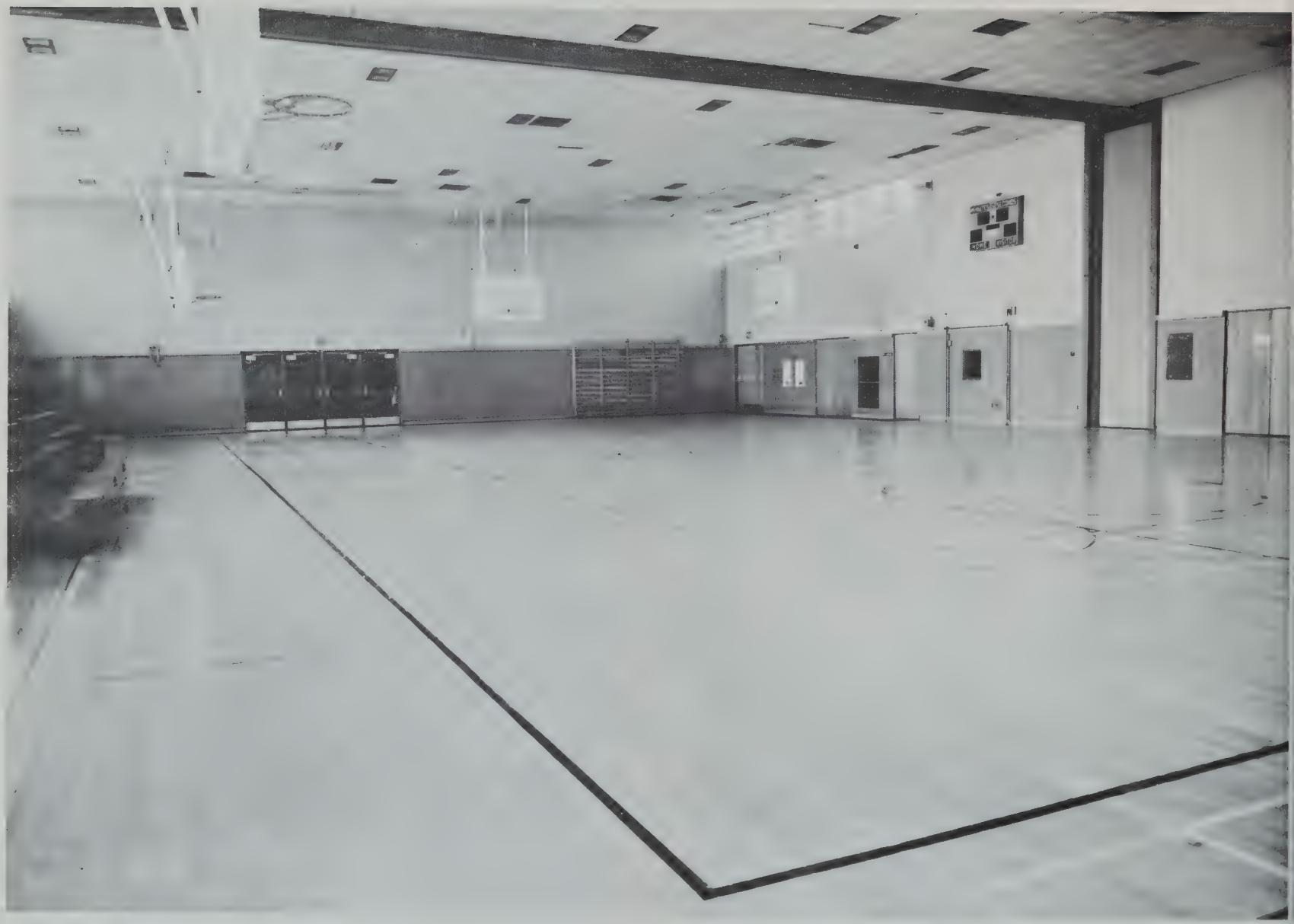
Mr. Edward A. Conley, Headmaster, his staff and pupils are proud of their beautiful new school. They welcome you and have arranged for your convenience a directed tour of the Charles G. Harrington School.

By following the directed route you will see all of the outstanding features which will be of interest to you.

The tour starts in the colorful public lobby reached directly from Cambridge Street. You pass through the foyer into the Auditorium.

The Auditorium is 62 ft. by 74 ft. There are permanent seats for 575 and all the modern necessities of lighting, public address system, electrically operated stage equipment required in an area designed to accommodate school assemblies, school plays, and general community gatherings.





As you leave the Auditorium you will be directed to the School cafeteria where hot lunches are provided to the pupils at normal costs. The cafeteria has a seating capacity of 300. You are invited to inspect the functionally designed kitchen with its modern equipment. You will note that the cafeteria is readily accessible from the main lobby thus making it possible for this community service facility to be used without interfering with other school facilities.

Your tour will take you through the woodworking shop classroom, the boy's locker room and shower facilities into the 68 ft. by 104 ft. gymnasium equipped with fold-up bleachers to seat 400. The gymnasium has three basketball courts and the area can be divided by an electrically operated folding door.

The home-making laboratory is the next stop in your tour. As you move through the corridors toward the class room area, you will note the courtyard and play areas.

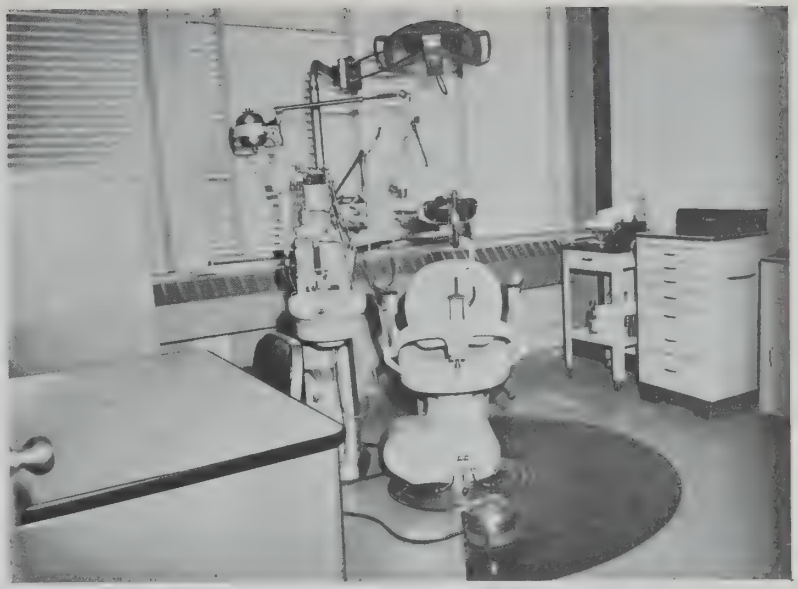
Here is the Kindergarten area. This area, 56 ft. by 130 ft. has four rooms, each with its own toilet and storage facilities. Two of the rooms may be made into one large room by use of folding partitions. Outdoor play areas are provided for the exclusive use of the Kindergarten children. This is one of the most delightful areas in the new school.

Enroute to the Cambridge Public Library branch you will find typical classrooms open for your inspection. There are 44 classrooms in the building, each designed to accommodate 30 pupils.

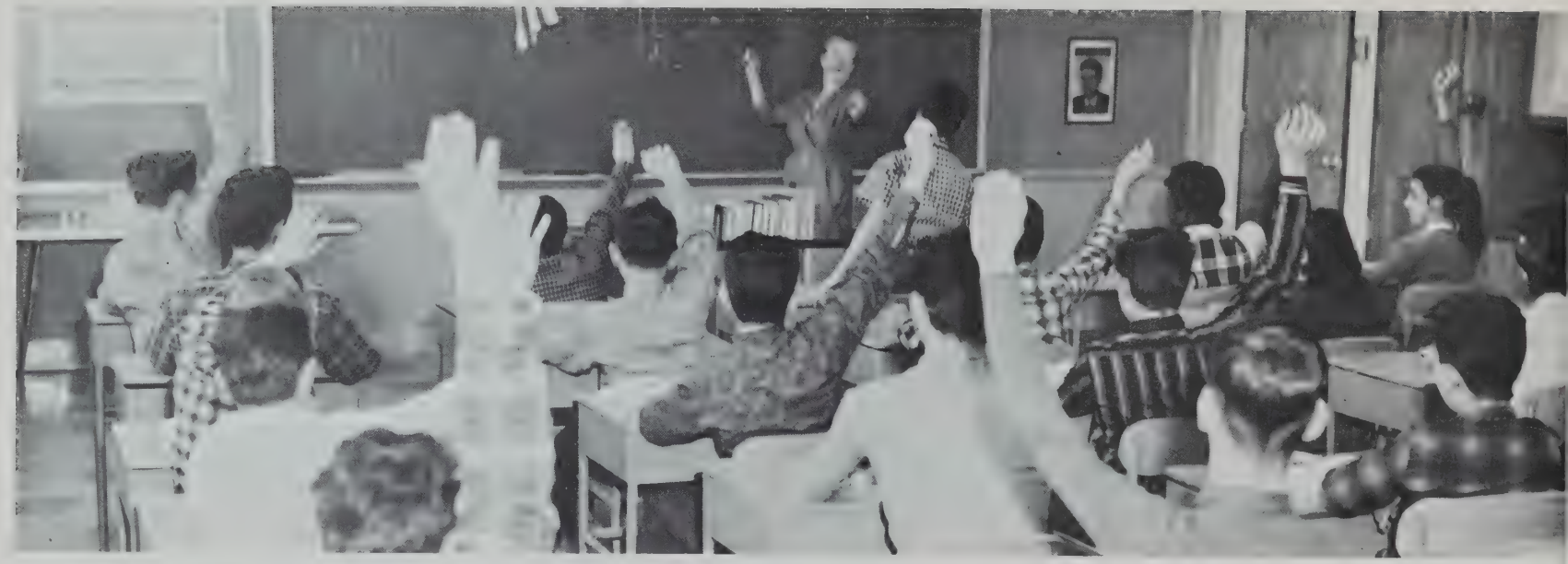
The branch of the Cambridge Public Library has a public entrance located on Cambridge Street, and a pupil entrance from the classroom wing corridor. This is another area intended for general community use providing air-conditioned comfort and complete library facilities.

As you re-enter the School area, you will be directed to the audio-visual classroom, the remedial reading class room and finally to the health unit which consists of a waiting room, two clinics, a physician's office, and a completely equipped dental unit.

Your tour is thus completed and you are again in the public lobby area. We hope you enjoyed your visit and that you are justly proud of this modern school building which will serve future generations of Cambridge children in the East Cambridge area.



Statistical Tables



Cambridge High and Latin School

Graduate Follow-up Study — Class of 1960

		Per Cent
Number of Graduates	430	
Questionnaires Sent	430	
Number of Responses	430	100.00%
Further Education	146	33.95%
Colleges and Universities	78	
Technical Institutes	3	
Junior Colleges	1	
Prep Schools	9	
Business Schools	22	
Nursing Schools	16	
Religion	2	
Hairdressing	3	
Post Graduates	9	
Miscellaneous Schools (Radio, Chef, Salvation Army)	3	
Total	146	
Employed (full time)	240	55.81%
Employed (part time)	6	1.40%
Armed Services	17	3.95%
Married (at home)	11	2.56%
Unemployed	10	2.33%
Total	284	100.00%

Distribution of Graduates in Institutions of Learning

COLLEGES AND UNIVERSITIES

Antioch College, Ohio	1	New Mexico Western College	1
Atlantic Union College, Mass.	1	Northeastern	8
Boston College	12	North Carolina College	1
Boston State Teachers	1	Ohio Wesleyan University	1
Boston University	11	Purdue University, Indiana	1
Brandeis University	2	Radcliffe	2
Defiance College, Ohio	1	Salem State Teachers	2
Drew University, N. J.	1	Sargent College	1
Emerson College	2	Simmons College	2
Emmanuel College	2	Stonehill College, Mass.	1
Fitchburg State Teachers	1	Tufts College	2
Franklin College, Indiana	1	Trinity College, Washington, D.C.	1
Harvard College	7	University of Massachusetts	1
Mass. College of Art	2	University of Maine	1
Mass. College of Pharmacy	2	University of Salonika, Greece	1
Mass. Institute of Technology	4	JUNIOR COLLEGES	
Middlebury College, Vermont	1	Boston University Jr. College	1

PREP SCHOOLS		NURSING SCHOOLS	
Cambridge Academy	1	Beth Israel Hospital	1
Huntington School	1	Boston City Hospital	2
New Prep	3	Cambridge City Hospital	3
Newman	4	Holy Ghost Hospital	3
TECHNICAL INSTITUTES		Mass. General Hospital	2
Le Tourneau Technical Institute (4 yrs.)	1	Mount Auburn Hospital	2
Franklin Institute	1	Somerville Hospital	3
Wentworth Institute	1	POST GRADUATES (C.H.L.S.)	9
BUSINESS SCHOOLS		MISCELLANEOUS SCHOOLS	
Bentley School of Accounting	3	Mass. Radio School	1
Burdett College	3	Henry O. Peabody School	1
Chandler School for Women	7	Salvation Army Training School	1
Pierce Secretarial	1	HAIRDRESSING	
Katherine Gibbs	1	Mansfield Beauty Academy	2
Hickox	1	Wilfred Academy	1
Hitchcock	1	RELIGION	
Mary Brooks	4	The School of St. Philip Neri	1
The Stenotype Institute of Boston	1	Convent	1

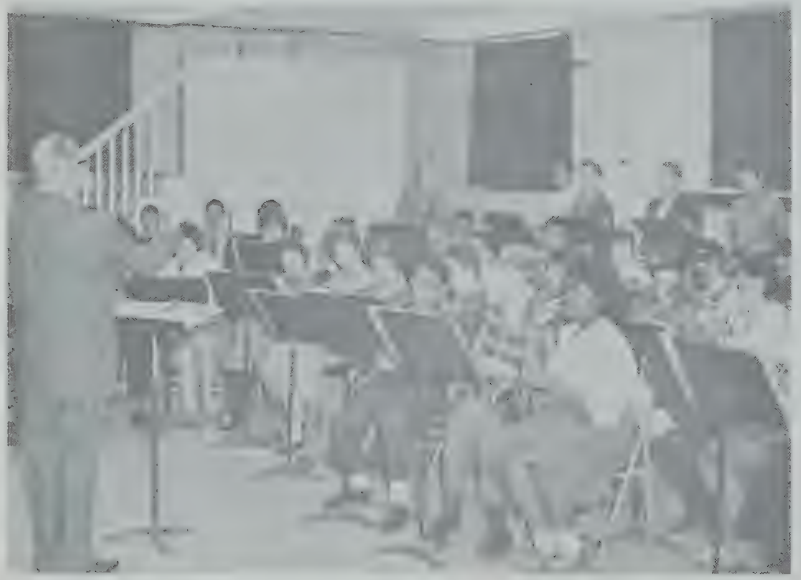
EMPLOYED

Obtained Jobs Through Placement Office	76
Obtained Jobs from Other Sources	164

EMPLOYED

College Course	13
Commercial Course	195
General Course	30
Home Economics Course	2
Total	240

Types of Employment

Accounting Clerk	3	Enumerator	1
Aluminum Applicator	1	Electronics	1
Assistant Buyer (store)	1	Factory Work	8
Asst. Trust Officer (bank)	1	File Clerk	7
Asst. Manager (beauty salon)	1	Florist	1
Auditing Clerk	1	Flex-o-writer	2
Bank Teller	3	I B M Operator	10
Billing Clerk	4	Inspector (factory)	1
Bookkeeper	29	Hairdressing	1
Candy Cook	1	Kettle Operator (dyeing cloth)	1
Camera Repair Trainee	1	Laboratory Technician	1
Claim Assembler	1	Legal Secretary	2
Clerical	24	Machinist	2
Comptometer	1	Mail Clerk	3
Dividend Clerk (bank)	1	Messenger	2

Nurse's Aide	1
Office Work	32
Payroll Clerk	2
Print-room Clerk	1
Posting Clerk	1
Pro-baseball Player	1
Post Office Supervisor	1
Production on Radio and TV	1
Receptionist	5
Saleswork	5
Secretarial	21
Stock Clerk	3
Stenographer	6
Shipper	1
Store Manager	1
Switchboard	2
Telephone Operator	2
Teletype Operator	1
Truck Driver	1
Typist	40
UNIVAC (Data Processing)	1
Usher	1

Employers of 1960 Graduates

Aetna Insurance
Alles Corp.
American Steel and Aluminum
Amiro Steel for Aluminum Corp.
American Architectural Iron
Atkins and Merrill
Austin-Hastings Steel Co.
Auto Damage Appraisers
American Mutual Liability Co.
Baird Atomic (3)
B B Chemical (3)
Badger Mfg. Co.
Beauty Garden
Better Homes Club Plan
Belmont Medical Center
Boston Camera
Boston Woven Hose
Boston College (2)
Bradford Novelty
Boit, Dalton and Church, Inc.
Carter's Ink (3)
Cambridge Gas and Light (5)
Cambridge Auto and Metal
Central Square Florist
Cambridge Chamber of Commerce
Cigarette Service
City of Cambridge (2)
Children's Haven
Central Pipe and Supply Co.
M. Carr Co.
Corcoran's Dept. Store
Controls for Radiation
Cochrane Steam Specialty Co.
Commonwealth of Mass.
Columbia Belt and Novelties
Cloverleaf Caterers
Crystal Onoax
Cuneo Press (2)
Dowd Paper Co.
Dynametrics Corp.
DuPont, Ramsey and Co.
H. G. Davis
Doughnuts Please
Dubin, Lace and Trimming
Elbery Motors
Employers Mutual of Wassau
Edgerton, Germehausen and Grier
Electrical Supply
First National Bank of Boston (4)
I. J. Fox
Galante, Ralph J., Insurance
Ginn & Co.
General Motors
General Electric
Goddess Bra Co.
Gordon Linen Service
Grabhill, Ley and Mason, Lawyers
Happy Home Bakery
Hartford Insurance
Harvard University (9)
Harris Stamp Co.
Harvard Cooperative Society (2)
Harvard Trust Co. (16)
Hyde Shoe Co.
Henry's Lunchroom
Honeywell Datamatic
Hearthstone Insurance
International Shoe and Machine
Industrial Stainless Steel (7)
Internal Revenue, U. S. Govt.
Industrial Education Institute
John Hancock Life Ins. (9)
Jordan Marsh Co. (4)
June Sportswear
Johns-Manville Sales Corp. (2)
Johnny's Supermarket
Kingston, Coffin and Jones, Lawyers
Lally Column Co.
Lewis-Shephard Products Inc.
Liberty Mutual Insurance (2)
Macalaster Bicknell Co.
Macy's Furniture
Mass. Catholic Order of Foresters
Merchant's National Bank
Mass. General Hospital
Mass. Institute of Technology (5)
Middlesex County (2)
Middlesex County National Bank
Makanna, Inc.
Metropolitan Theatre
Mount Auburn Hospital
National Shawmut Bank (8)
Nature Food Centres
National Casket Co.
National Pneumatics Corp.
New England Gas and Electric
National Doughnut Shops
Negea Service Corp.
New England Mutual Life Ins. (7)
Necco Candy
New England Tel. & Tel. (5)
O M S Advertising
Polaroid (9)
Plymouth Rock Trans. Corp.
Public Finance
Price & Lee (2)
Prudential Insurance
Private Contractor
Raytheon
Reliance Brand Co.
Revelation Bra
S. Rosenthal & Son, Painters
Radio Shack
Raymond's Dept. Store
K L H Research and Development
Dr. James Rockett, D.S.C.
Stahleker Steel Corp.
Star Market (2)
Sears Roebuck (3)
Spilewski's Supermarket
Squirrel Brand Co.
Signet Club Plan (4)
Somerville National Bank (2)
State Street Bank and Trust (4)
Sanborn Co.
Simplex Wire and Cable
Security Mills
David S. Smith, Attorney
San Francisco Giants
United Utilities and Specialty
United Parcel
United Research
United Shoe Machinery Corp.
Venus Beauty Centre
Vernon Hall, Nursing Home
James O. Welch Candy Co.
F. W. Woolworth
White Cross Home Products
WNAC Radio and Television

ANALYSIS OF GRADUATES — Class of 1960

Special Study By Course

			Per Cent
Graduates from College Course		221	28.14%
College	78		
Other Schools			
Technical Institutes	3		
Prep Schools	6		
Business Schools	3		
Nursing	8		

Employed (full time)	13		
Armed Services	3		
Religion	1		
Married (at home)	2		
Employed (part time)	1		
Post Graduates (C.H.L.S.)	3		
Graduates from Commercial Course		257	59.77%
Business Schools	16		
Junior College	1		
Prep School	3		
Hairdressing	2		
Armed Services	12		
Nursing	4		
Miscellaneous Schools	2		
Married (at home)	6		
Post Graduates	4		
Unemployed	8		
Employed (part time)	4		
Employed (full time)	195		
Graduates from General Course		48	11.16%
Business Schools	3		
Nursing	4		
Religion	1		
Armed Services	2		
Employed (full time)	30		
Unemployed	2		
Miscellaneous Schools	1		
Unemployed	2		
Married (at home)	3		
Graduates from Home Economics Course		4	.93%
Hairdressing	1		
Employed (full time)	2		
Employed (part time)	1		

RINDGE GRADUATE FOLLOW-UP STUDY

Class of 1960

		Per Cent
Number of Graduates	141	
Questionnaires Sent	141	
Number of Responses	141	100.00%
Further Education (full time)	37	26.24%
Colleges and Universities	16	
Technical Institutes	14	
Junior Colleges	1	
Prep Schools	3	
Post Graduates: C.H.L.S.	1	
R.T.S.	2	
Total	37	
Employed (full time)	64	45.39%
Armed Services	27	19.15%
Unemployed	7	4.96%
Employed (part time)	6	4.26%
Total	104	100.00%

RINDGE
DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities		16
Boston College	1	
Boston University	3	
Defiance College, Ohio	1	
Harvard University	2	
Mass. Institute of Technology	1	
Museum School of Fine Arts	1	
Northeastern University	6	
West Point	1	
Junior Colleges		
Chamberlayne Junior College	1	
Technical Institutes		
Industrial Technical School	7	
Coyne Electrical School	1	
Wentworth Institute	6	
Prep Schools		
Huntington Preparatory	1	
Newman Prep	2	
Post Graduates		
C.H.L.S.	1	
R.T.S.	2	

EMPLOYMENT DISTRIBUTION OF GRADUATES RINDGE

Accounting	1	Drafting	3
Assembly	2	Electronics	2
Auto Mechanic	1	Electro-Mechanical Assembler	1
Camera Repair	1	Electronics Tester	1
Cook's Helper	1	Electronic Assembly	1
Cashier	1	Electrician's Helper	1
Counter Work	2	Factory	2
Clerical	4	Film Quality Control	1
Chemical Cleaner	1	Gas Station Attendant	1

General Worker	1	Printing	3
Hotel Clerk	1	Porter	1
I.B.M. Operator	1	Printed Circuits	2
Laboratory Technician	1	Printer's Apprentice	1
Machine Operation	3	Packer	1
Mechanic	2	Quality Control	1
Messenger	2	Sales	4
Mail Clerk	1	Semi-Utility Man	1
Machine Shop	1	Shipping Clerk	1
Mechanic's Helper	1	Stock Work	3
Mechanical Assembly	1	Shipper	1
Office Work	2	Welder	1

Employers of 1960 Graduates

Aircom, Inc. (electron)
Advance Instruments
Albert Richards Co.
Arkles Switch Co.
Arrow Armatures
Allied Research Corp.
A & P Stores (2)
Baird Atomic (4)
Brigham's
Broadway Sunoco
Bradford Novelty
Cargo-Imperial Freight Lines
Commander Hotel
Carpenter & Paterson
Cuneo Press
Cambridge Printing Co.
Cadillac & Olds
Coffeetime Restaurant
C. G. & G., Inc.
Epsco
East Cambridge Auto Service
Electrical Co. (unspecified)
E. S. Webster Co.
First National Stores
Flow Corp.
Ferroter
Gillette Safety Razor Co.
Harvard Faculty Club
Hermes Electronics
Harvard Trust Co.
Highway Express
Jones & Lamson Machine
Liberty Mutual Insurance Co.
Lexington Press
Luke's Restaurant
Mass. Institute of Technology
Metallic Arts of New England
Mainport Pharmacy
Miller's Electric
Negea Service Corp.
New England Ring & Flange
New England Gas & Electric
Orlando Bakery
Pelley Co.
Polaroid (2)
R. F. Fitting Co.
Riverside Press
Raytheon
Radio Shack
Sans Lunch
Silver Lake Motors
Stop & Shop
Sancta Maria Hospital
Stone & Webster Engineering
St. Johnsbury Trucking Co.
Technology Store
Thibeault Bros.
United Electric Controls (4)
University Theatre

Obtained Jobs Through School Placement Office

	Number	*Per Cent*
Yes	14	21.88%
No	50	78.12%

Requests for New Jobs

Yes	17	26.56%
No	47	73.44%

		Per Cent
Special Study of College Course		
Graduated from College Curriculum	40	28.36%

Those attending colleges or other schools

College	14
Prep Schools	1
Technical Schools	6
Post Graduates: C.H.L.S.	1
Armed Services	7
Employed (full time)	8
Employed (part time)	1
Unemployed	1
Part Time Study and Work	1

Student Exchange Day — Stoughton High visits Rindge Technical School

1960 Class Statistics

ENROLLMENT CHART BY GRADES

Grade	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
I	997	1,166	1,198	1,079	1,017	1,014	998	1,046	1,066	1,086
II	884	841	976	969	891	871	867	886	887	904
III	893	812	827	921	917	877	821	817	848	851
IV	821	842	779	751	878	896	838	797	822	808
V	790	799	801	747	701	852	858	838	763	822
VI	651	689	782	759	710	660	831	836	817	759
VII	657	640	677	749	707	693	662	791	804	798
VIII	654	611	584	626	679	667	655	635	736	740
IX	751	815	796	790	790	933	796	772	693	887
X	772	708	741	698	640	722	805	775	742	661
XI	725	689	595	666	567	477	639	749	724	724
XII	559	601	568	550	559	505	466	549	618	606
P.G.	17	15	21	14	8	29	23	21	15	17
Ungraded								148	168	126

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.
High and Latin	644	472	527	417	15	2075
Rindge	243	189	197	189	2	820
Boys' Vocational	Ungraded					90
Girls' Vocational	Ungraded					36

October 1 1960

Waiting for Transportation — School and Commerce Day, 1960

NUMBER OF PUPILS in the GRAMMAR SCHOOLS

December, 1960

Grade	*Boys*	*Girls*	*Total*
Eighth	355	378	733
Seventh	400	371	771
Sixth	391	378	769
Fifth	422	392	814
Fourth	439	368	807
Total	2007	1887	3894
Ungraded	122	78	200
Total	2129	1965	4094

NUMBER OF PUPILS in the PRIMARY SCHOOLS

December, 1960

Third	421	410	831
Second	469	429	898
First	554	524	1078
Total	1444	1363	2807

NUMBER OF PUPILS in the KINDERGARTEN

December, 1960

Boys	675
Girls	651
Total	1326

AGES

DISTRIBUTION OF PUPILS BY AGE AND GRADE

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21 Over 21		Totals
Kdgn.	M	253	406	6	1																666
	F	293	375	4																	672
I	M		158	307	79	12															556
	F		157	312	46	11	4														530
II	M		1	112	254	90	13	5	1	1											477
	F			126	234	56	9	2													427
III	M				84	229	79	37	9												438
	F				138	224	38	10	2	1											413
IV	M					101	210	76	32	6											425
	F					118	198	53	14												383
V	M						88	208	87	37	8	1									429
	F						112	191	60	26	4										393
VI	M							73	198	70	30	11									382
	F						1	111	187	44	27	7									377
VII	M								92	189	86	36	5	1							409
	F								104	193	61	26	5								389
VIII	M								1	81	187	73	16	4	2						364
	F									98	196	67	15								376
IX	M									1	152	202	81	21	3	1					461
	F										162	196	61	11							426
X	M										2	73	175	80	14	1					345
	F											124	153	32	7						316
XI	M												99	172	90	19	4	2		1	387
	F												117	170	44	6					337
XII	M												1	73	173	60	14	1		1	323
	F													110	141	29	3				283
P.G.	M														6	2	3	1			12
	F														3	2					5
Voc. Schs.	M											3	28	52	7						90
	F											11	15	7	2	1					36
Ungraded	M			1	1	7	12	15	17	15	17	10	7	2							104
	F					3	8	5	10	13	10	10	6	2							67
Totals	M	253	565	426	419	439	402	414	437	400	482	409	412	405	295	83	21	4	—	2	5,868
	F	293	532	442	418	412	370	372	377	375	460	437	372	332	197	38	3	—	—	—	5,430
																				Grand Total	11,298

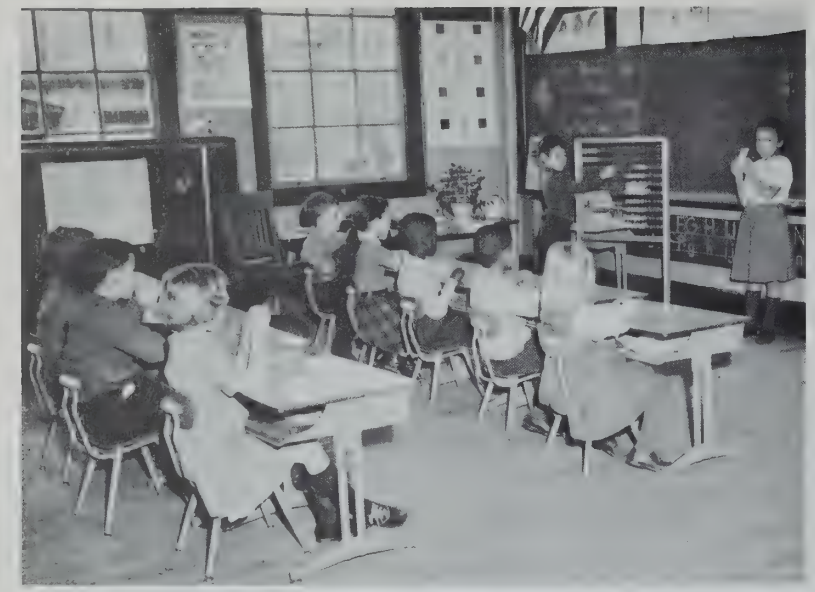
AGE GROUPS

5 years or over and under 7

Boys 991 Girls 974 Total 1,965

7 years or over and under 16

Boys 3,814 Girls 3,593 Total 7,407



Learning Number Concepts in Grade I

Academically Talented, Grade 6, Peabody School

A portable laboratory table is now available in most of our elementary schools

EXIT

BUREAU OF PUPIL SERVICES

1959-1960

I Testing Program

1. Group Tests

Reading Readiness (Grade 1)	1054	
Intelligence Tests (Grades 2, 5, 8)	2331	
(Grades 10, 11)	1345	
Miscellaneous pupils	329	
Achievement Tests (Grades 5, 7, 8)	2262	
(Grades 9, 10)	1168	
Occupational Interest Tests (Grade 9)	463	
Total Number		8952

2. Individual Tests

Number of pupils studied individually		
Kindergarten through Grade 12		468
Intelligence Tests	421	
Achievement Tests	321	
Other Tests	424	
Total		1166

II Psychiatric Clinic

Number of Individual Pupils Referred to Psychiatrist

	BOYS	GIRLS	TOTAL
New Cases	55	31	86
Continued Cases	23	11	34

Total Number of Pupils Seen by Psychiatrist

	BOYS	GIRLS	TOTAL
	78	42	120

Diagnostic Interview	86	Parent Interview	149
Treatment Interview	95	Other than parent	10
	182		159
Conferences with Psychiatrist			76

There are also numerous conferences between the staff of the Bureau and students, teachers, other school personnel, parents, and agencies.

Safe Bicycle Riding Contest

Massachusetts Registry of Motor Vehicles Safety Program, Grades 4-8

CAMBRIDGE PUBLIC LIBRARY

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NNUAL

EPORT

CHARLES G. HARRINGTON SCHOOL

he CAMBRIDGE, MASSACHUSETTS PUBLIC SCHOOLS

1961
ANNUAL REPORT

THE CAMBRIDGE
MASSACHUSETTS
PUBLIC SCHOOLS

1961
ANNUAL REPORT

of the

SCHOOL COMMITTEE

and the SUPERINTENDENT OF SCHOOLS

CAMBRIDGE, MASSACHUSETTS

"The University City"

The School Committee

January 1, 1960 to December 31, 1961

Chairman
Mayor Edward A. Crane

Vice Chairman
Mrs. George W. Ogden, Jr.
33 Linnaean Street

William S. Barnes, Esq.
121A Brattle Street

James F. Fitzgerald, Esq.
137 Otis Street

Anthony Galluccio, Esq.
56 Concord Avenue

Daniel J. Hayes, Jr.
23 Norris Street

Gustave M. Solomons
85 Inman Street

Regular Meetings of the School Committee are held on the first and third Tuesdays of each month, except July and August, at the School Committee Office, 1700 Cambridge Street.

Officers of the Cambridge School Committee

John M. Tobin . . . . . 76 Fresh Pond Lane
Superintendent of Schools

Edward J. Danehy . . . . . 37 Yerxa Road
Assistant Superintendent of Schools

John R. McCarthy . . . . . 198 Rindge Avenue
Secretary to the Superintendent of Schools and Assistant Business Agent

Edward J. O'Connell . . . . . 49 Fayette Street
Secretary to the School Committee and Business Agent

Gerald T. Liston . . . . . 151 Magazine Street
Assistant Business Agent
Died June 1961

William J. Fitzgerald . . . . . 79 Reservoir Street
Chief Custodian

School Holidays

Columbus Day; Armistice Day; Thanksgiving Day and the day following; Washington's Birthday; Good Friday; Patriots' Day; Memorial Day; and the Seventeenth of June. If one of these holidays falls on Sunday, the schools are closed on the following day.

Offices at 1700 Cambridge Street

Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day, excepting Saturday.

Evening Schools

There are two terms of the evening schools. The first term begins on the second Tuesday of October and closes one week previous to the closing of the day schools for the Christmas holidays. The second term begins on the first Tuesday of January, except when that day falls on New Year's Day, in which case it begins on the Thursday following New Year's Day, and continues for at least twenty-five evenings. Vacations and holidays are the same as in the day schools.

The School Calendar

1961-1962

1st Term
September 7 - December 22, 1961

2nd Term
January 2 - February 16, 1962

3rd Term
February 26 - April 13, 1962

4th Term
April 23 - June 22, 1962

1962-1963

1st Term
September 6 - December 21, 1962

To the Honorable, The School Committee:

I submit herewith my seventeenth annual report which is the ninety-fourth in the series of annual reports by the Superintendent of Schools and the one-hundred-twenty-second in the printed reports of the School Committee of Cambridge.

Every week in the year, it seems, I receive a copy of the annual report from the Superintendent of Schools of some one of our nation's school districts. They come in all shapes and sizes. Some are so dull and unattractive in make-up, it requires a positive effort of will to give their contents anything but the briefest, most cursory glance. Others are so attractive in appearance as to command a close, careful scrutiny. Our own reports, I have been told by many of my fellow Superintendents, fall into this latter class — attractive in format, worthwhile and stimulating in content.

The late Peter J. Cassidy, for twenty-nine years teacher of Airplane Engines and Machine Shop Practice at the Rindge Technical School,

was one of the individuals most responsible for the attractiveness of our annual reports. He was for many years official photographer for the Cambridge Public Schools — an assignment which frequently required him to work at hours and at seasons our day schools are not ordinarily in session. The duties and responsibilities of this assignment were all out of proportion to the small stipend he received. His devotion to duty, his hard work, his cheery disposition are greatly missed.

Also missed is Miss Elizabeth F. Butler, Director of Kindergarten and Primary Education, who retired in June, 1961. Miss Butler had a long career as teacher, administrator and supervisor in the Cambridge Public Schools. It was largely through her influence that Cambridge maintained the teaching of phonics in the reading program when it was considered unfashionable to do so. Miss Butler's judgment has been vindicated for teacher training institutions are now preparing teachers who use phonics in the teaching of reading. We wish Miss Butler many happy, healthy, useful years of retirement. And we extend the same heartfelt wish to all the men and women, whether on our professional or civil service staffs, who retired in 1961 after years of devoted service to generations of Cambridge children. Their influence will be felt wherever these children may go.

> "No two alike: Every single human being is an original. Each sees differently . . . thinks differently . . . is unique in talent and ability. Under the sun of freedom, individual abilities flourish. The advantage of our society is that it nurtures this diversity for the welfare and happiness of all. As long as each of us has the freedom — and the incentive — to develop his own particular talents to the highest degree, our future is unlimited."

I propose to use this quotation, which I have taken from a recent advertisement in a national magazine, as the text for this section of my report. But, first, I must amend my text's last sentence. Because an individual's freedom is relative, always conditioned by one's own duties and by the rights and duties of others, I am editing it so that it will read, "freedom under law . . .". Freedom in any other context leads to chaos.

And, it would seem, chaos must reign in any institution, such as the schools, which must deal with large groups whose individual members are each "an original" who "sees differently . . . thinks differently . . . is unique in talent and ability". However, social scientists are

The Superintendent Presents the Cambridge Teachers Club's Gift to Miss Elizabeth Butler on the Occasion of Her Retirement.

emphatic in their insistence that the spread of the normal is wide (and, by corollary, wide also is the spread of the sub-normal and the above-normal). Hence, the characteristics which make an individual unique — his intelligence level, his interests, aptitudes, motivations, his pattern of biological, emotional and social development — are not so singular as to prohibit an individual's classification within certain broad categories. Thus order is possible where chaos might prevail.

The curriculum is one of the instruments we educators use to classify our pupils and so contribute to the establishment of that good order which must prevail if the educational process is to begin, to be developed and brought to fruition. For example, every day we say, of one or another of our charges, "He is in the fifth grade".; or, "She is in the College Preparatory Course".; or, "This child does not know the tables". In this way, we express a relationship which exists at that moment between the pupil and the curriculum. We are locating the pupil by describing where he is in terms of the curriculum. And where he is, of course, is the product of his "unique talent and ability," the direction and strength of his motivation, and his teacher's efforts.

What, then, is this thing called "curriculum?" In one sense it is the course of study in a given subject-matter area. However, I like to think of the curriculum in more general terms as the product to whose attainment all our intermediate efforts are directed. I would, therefore, describe the curriculum as the aggregate of those knowledges, attitudes and skills which the individual in any society must possess, at least minimally, if he is to cope with, and master his environment.

The curriculum, then, must change with time and place. The science courses of the 1860s offer little to help us moderns to cope with, to master our environment in the 1960s. The content of civics courses offered in the schools of the British Commonwealth must be quite different from the content of such courses in our own schools. A second language was a matter of no urgency in the elementary schools of a nation, rendered insular by geography, when the normal speed of communication was a function of weather, the sailing ship and the pony express. The situation is quite different, however, when anyone, who can afford it, can implement plans to dine in Cambridge, breakfast in London, and lunch in Cairo; when radio, telephone, teletype and TV make communication almost instantaneous between stay-at-homes in most places on this planet.

But the curriculum also has constants, elements that are not responsive to changes of time and place because they satisfy basic and universal needs. Consequently, much of the content of our own curriculum in any subject matter area at any grade level is to be found similarly placed in the curricula of school systems throughout the nation. If this were not so, we would have no standardized tests nor text books. Because it is so, I can adopt, with a minimum of minor changes, the following course summaries, prepared by the Cincinnati Public Schools, as descriptive of our own curricula during the educationally significant elementary school years.

Kindergarten

In Kindergarten, the teacher, with parents, helps children develop good work and social habits. They learn to try to do their best, to stay with a job, take care of personal belongings, take turns, respect other's rights, and to take care of public property. They discover that school is a friendly place where there are interesting and profitable things to do and learn.

Kindergarten builds the foundations for future learning in many subjects. It helps open children's eyes to the wonders of the world in which they live: they explore topics in science, social studies, numbers. Using crayons, scissors, finger paints and other materials, children develop the muscles they will need later for handwriting. They express their ideas and feelings as they paint pictures and build things. They find their voices in singing and feel the joy music provides.

Boys and Girls Meet the Great, Wide, Wonderful World of the Printed Word

As children listen, observe, talk, they increase their oral vocabularies and learn to organize and express their ideas. They dramatize life as they know it. They become interested in what books have to tell them. Their eyes and ears learn to perceive similarities and differences about them. In these and other ways, they are growing into reading.

Reading

Reading is essential to progress in nearly every subject. In the primary grades, much of the school day is spent in learning to read. Yet, learning to read and reading to learn go forward side-by-side. As early as the first grade, the child reads for information in simple health and science materials. From the beginning, too, attractive books are to be

found in every classroom. In the intermediate grades, children depend more and more on reading to find information and solve problems. They must be able to read texts in social studies, language arts, science, health, arithmetic and reading. They learn to use encyclopedias and other types of reference materials. Emphasis is placed on the comprehension and use of the material read.

Children are taught many ways to learn new words. Sometimes they learn a new word by reading the rest of the sentence. They look and listen for beginning sounds and word endings. They use phonics to learn the sounds of letters and combinations of letters. They learn to attack a new word by syllables and to look for root words. They learn to use dictionaries to find the pronunciation and meaning of new words.

The Language Arts

During the elementary school years, the language arts program includes listening, speaking, and writing in addition to reading. Thus children exchange ideas and gather information for understanding people and the world.

From early childhood children listen and speak. The school program helps them improve these skills. They listen to stories and interesting experiences of their classmates; they give reports and take part in discussions. Through listening and talking, children build ideas which they will later put in writing. Children learn to write their own simple stories in second and third grade. Often first graders copy a message to take home to parents.

Manuscript writing, a kind of printing, is used at first, since straight lines and circles are easy to make and the letters more nearly resemble those to be found in pre-primers, primers and other first and second grade texts. Cursive, regular writing is begun by the middle of the third grade.

Although children do learn to spell in grade one, regular spelling lessons begin in the second grade. Spelling textbooks contain the most commonly used words and many helpful spelling rules and aids. Children are taught to correct their own errors by using dictionaries and textbooks.

Children in the middle grades use writing for many purposes and with increasing independence. They learn to compose a good paragraph, to write personal and business letters, to take notes and make outlines. They are taught to proofread their writing and are given

practice in the skills they lack. They learn that if their message is to be effective, legible handwriting, correct spelling and grammar are essential.

Arithmetic

The young child works with manipulative materials and takes part in many planned activities to learn the relationships of numbers. For example, if he has six pieces of paper for seven pupils, he learns that six is one less than seven. Thus, he learns to count and to understand the relative value of numbers from 1 to 10. The home, the community and the school each contribute to the development of basic number understandings.

As soon as children work with numbers above 10, they learn the importance of place value and of 10 as the base of our number system. By the end of third grade, most children can use the basic facts of addition and subtraction in solving problems. They have begun multiplication and division. However, they still use manipulative materials when learning a new arithmetic process.

Children in the intermediate grades use larger numbers to solve more complex problems. They learn to apply the four fundamental operations to common and decimal fractions and are introduced to per cent. They learn the basic notions of measurement from experiences which emphasize the practical uses, the utility, of arithmetic.

Some children naturally make more rapid progress in arithmetic than others. By grouping, teachers help each child to develop to his maximum. Children need much practice to gain speed and accuracy in working with numbers. Thus they learn that estimating and mental arithmetic can help them solve problems quickly.

Science

Children are natural investigators. They ask questions, feel objects, taste and smell things. The elementary school science curriculum gives direction to these interests and helps the child to grow in scientific awareness. To accomplish this, the school explores many phases of science — living things, energy, simple machines, the earth, space, and weather.

Children frequently face problems in science for which they have no ready answers. The teacher places them in the role of the discoverer — he helps the child to be "science-minded." In their search for answers to questions and problems, they are encouraged to plan

These Pictures, Taken in the Same Elementary School Science Room, Provide an Interesting Contrast in Interests.

methods of attack, to collect information, to observe relationships, and to make generalizations.

Science classes often begin with questions — "What is it?", "How does it work?", "What does it do?", "Why does it work that way?" As early as Kindergarten children report their observations of weather changes. Later they learn that water can be liquid, solid or gaseous. Still later in their school careers they experiment to understand the water cycle and what causes rain and snow. By the sixth grade, they become concerned with man's efforts to forecast and to modify the weather.

It is important that children raise questions, try to judge what will happen, and select ways to answer their questions. By learning to use scientific methods in those areas of human knowledge and experience where these are valid, they become better prepared to understand and to cope with new problems as they arise in the future.

Social Studies

History, geography and civics make up the major content of the elementary school social studies program. As a consequence of their work in the social studies, children learn to value the dignity and worth of each individual. They also learn to understand the value of the democratic way of life and to develop a sense of civic responsibility. They come to realize that they live in a changing world where men and nations are increasingly interdependent.

The development of the regular program is co-ordinated with the child's ever widening horizon. Early in the program the child learns through discussion and play the importance of family life. Later, by the use of similar techniques and through reading and community excursions, he becomes more aware of the people in the community who make his life comfortable — that people depend on their neighbors, surroundings and resources to supply their basic needs for food, clothing and shelter. He then studies the history, geography and civics of his own state and nation before turning his attention to those of our neighbors in this and in the other Hemisphere.

The formal instructional program, observance of holidays, and study of the lives of great American leaders is developed to help children learn the how and why of our form of government. During these formative years, children are taught of the sacrifice, the personal commitment and the devotion that have made it possible for this nation

A World Conference and Exposition as Conceived and Produced by Eighth Graders at the Houghton School

to offer the freedom and opportunity found nowhere else in the world.

While we still have "have nots" amongst us, as a people, we Americans do enjoy the highest standard of living in the history of mankind. One resultant of this high standard of living in the increase in the individual's leisure time resulting from a decrease of the work week through labor-management contracts and automation in the home, office and factory. This increased leisure time is one aspect of his environment the individual must learn to cope with, to master if we are not to become a nation of "softies" at best, of aging delinquents at worst. Nothing weakens the character of an individual, or people, faster and more effectively than idleness.

A curriculum anywhere, any time, strictly confined to the three Rs, is legend not fact. Educators have always allotted the time, and expended the effort, to help pupils develop informed interests in personally satisfying, socially acceptable leisure time activities. We have known for years that, for most of our pupils, the carry-over from our Woodworking, Sewing, Music, Art and Physical Education courses is avocational rather than vocational in nature. The study of literature and the encouragement given recreational reading in our English classes, the time devoted there and elsewhere to the evaluation of motion pictures, radio and TV programs are all designed to help the pupil develop standards of taste useful in distinguishing the true, the good, and the beautiful from the sordid, the sensational, and the tawdry.

The study of the classics, for example, would indeed be sterile if they were viewed as period pieces only. The situation is quite different when literary endeavors of whatever nature and age are studied to determine why they "made good," why they are classics. Study of this kind permits the development of specific answers in particular instances and, ultimately, to the formation of generalizations from which are developed the canons of good literature, the hallmarks of good taste. If we bring our students this far we have laid the foundation for effective transfer of training from classroom to home and community life, from adolescent to adult life. And this is, perhaps, the upper limit of our real influence on leisure time activities.

Whether the goal of a specific curricular offering be cultural, avocational or vocational, the degree to which a pupil attains the goal is a matter of capacity and of incentive as well. The capacity to learn must be there or there can be no learning; the incentive must be there or there will be no learning. What, then, is this thing called incentive, motivation?

It is, in our context, a human response to satisfy a need for learning arising from an internal or external stimulus. The intellectually curious are those whose need to learn is internally stimulated. These are the self-starters, the self-propelled of any age and level of capacity who are the joy of every teacher's life. Their need to learn is not an indiscriminate, generalized need satisfied by any random learning product. Rather, their need is one that is channeled in directions determined by the individual's aptitudes and interests. The learning product is the important result with these individuals.

Many of us, on the other hand, regardless of capacity, are motivated to learn by external stimuli. The teacher who regularly checks assigned homework for accuracy, completeness, thoroughness and neatness; the teacher who daily involves each pupil in recitations or class discussions; the teacher who evaluates pupil performance for purposes of reward and punishment, if only in the form of grades; all are using external stimuli to promote learning. Unfortunately, it is the approval of one's peers or elders, in whatever form it may take, which enjoys primacy of purposes here; the learning product is a subsidiary, a by-product. Herein, I suspect, may lurk the cause for the operational failure of training to transfer to related situations within and without the classroom.

Of course, this psychological mechanism we call motivation is not quite so uncomplicated in practice. Nor do individuals fall so neatly and conveniently into either the category of the intrinsically motivated or that of the extrinsically motivated. All of us some of the time and in some learning situations are self-starters and, once started, are self-propelled; all of us most of the time, however, in most learning situations need to be pushed and, once started, coaxed along.

Whether the assign-study-recite technique (a legitimate, useful and effective method in some situations) is a response to our human need for extrinsic motivation in learning; or, whether this technique is a major cause in the development of this need, is immaterial in this present context. What is material and certain, however, is the fact that this teaching technique stifles initiative and creativity. And, what has made our nation great, if initiative and creativity have not? How, then, can we present our curriculum and also encourage the develop-

ment of initiative and creativity, neither of which, so far as is presently known, is necessarily related to intelligence level?

This is the challenge which the newer techniques in teaching and in school organization are designed to meet. The project method, the Dalton Plan, the unit assignment, the ungraded elementary school, departmentalization in the upper elementary grades, team-teaching — all have as their purpose the release of pupil energy by stimulation of initiative, the fostering of creativity. The newer approaches to elementary school organization such as team teaching and the ungraded primary and elementary schools are still in an experimental stage. Such experimentation is unquestionably necessary; but it is not necessary that our own children be made the subjects of major experimentation whose results enjoy a fifty-fifty chance of disproving the experimental hypothesis. If this should happen, as it has, for example, in the so-called "Look-Say" method of teaching reading, the effect on the children involved could conceivably be just as harmful and long-lasting. Respect for the rights of parents in the area of their children's education, respect for the right of each child to get the best possible educational start in life, must result in an approach to the new and novel in education that is marked by a healthy skepticism and extreme caution. Before involving other people's children in " a great leap forward," we must be reasonably certain that all concerned will come down on firm ground.

And we are on firm ground when we utilize some of the teaching techniques that have been developed as alternatives to the assign-study-recite method. Teaching is more than telling because learning is more than listening. Learning is an active process — a reaching out for knowledge. It is this fact of intellectual life which the newer methods of teaching capitalize upon. They substitute knowledge for the demands of the teacher as the pupil's goal. These methods deemphasize memorization and strive to stimulate pupil interest, to encourage intellectual curiosity, to demonstrate the inter-relationships of the various areas of human knowledge as well as the latter's practical usefulness as a tool for dealing successfully with one's environment.

These newer methods abandon the total reliance on the single textbook in each subject matter area which is characteristic of the assign-study-recite methodology. Wide reading at the appropriate level is encouraged and required; pupil investigation, research — in science, the social studies, language and literature — which makes a contribution to the pupil's knowledge is encouraged and required. Reports, whose presentation may utilize the entire range of communication media, are required and are prepared by individuals and groups. It takes little imagination, therefore, to appreciate the opportunities for personal development through its challenge to pupil initiative and its release of pupil creativity which these newer approaches to teaching and learning make possible. It staggers the imagination to picture the possibilities for personal development which they promise the child who may be culturally deprived, and the child whose experience at home, at school or in the community has taught him that school is a necessary evil which must be suffered until age sixteen.

Regardless of method, the basal text is, of course, the teacher's fundamental tool. But when he uses the newer methods, as very many in Cambridge do, it is a tool which must be supplemented by a wide variety of printed materials of which our schools' supplementary texts, encyclopedias and other basic reference books provide an inadequate sampling. Some few and fortunate children find their needs satisfied by the resources available in their homes. Most children do not, and, so, must turn — if they do — to the Juvenile Department of the nearest branch of the Public Library which, in terms of concept and service, differs radically from the modern school library.

In the School Department Budgets for 1948 and 1949, I made provision for the establishment and support of centralized school libraries at the Webster and Houghton Schools. This was the first step in a program to provide each of our elementary schools with a professionally staffed, adequately equipped, centralized school library. The then City Manager struck these items from our budget for reasons I am sure he sincerely believed to be good and sufficient.

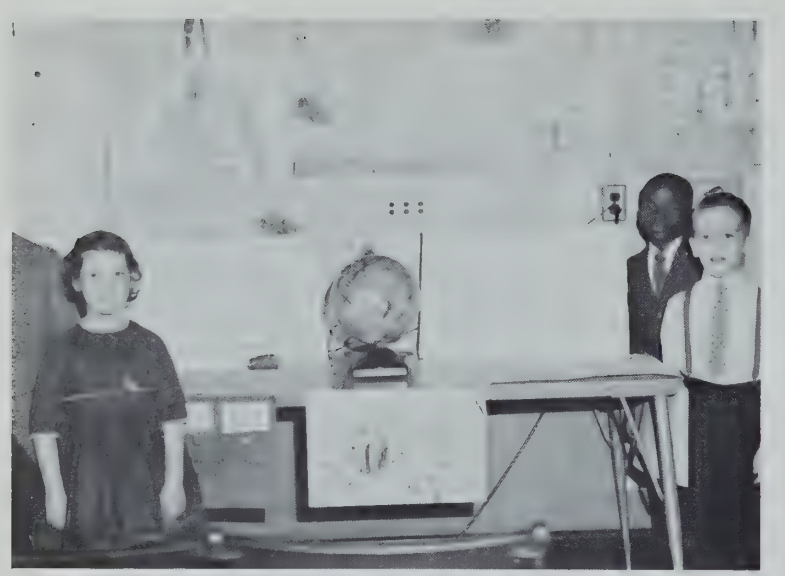
The situation has now changed. Soon the new Peabody School will be opened. Unlike the M. E. Fitzgerald School and the Charles G. Harrington School which house branches, including Juvenile Departments, of the Public Library, the Peabody School will have its own school library — a specially designed room on the second floor restricted to the school's pupils and available to them during school hours only. Therefore to improve the quality of educational opportunity in Cambridge and to provide equality of educational opportunity in Cambridge, I recommend that Your Honorable Body undertake or authorize a study

to develop plans to establish a centralized school library in each of our elementary schools.

In conclusion, I wish to express publicly to the Assistant Superintendent of Schools, the Headmasters, Masters, Directors, Teachers and all other employees my sincere appreciation for their co-operation, assistance and support. I wish, also, to express my deep gratitude to His Honor, the Mayor, and to the Members of the School Committee who have given their time so generously, and who have been so co-operative with their advice and counsel.

John M. Tobin

Superintendent of Schools



The Haggerty School Has a Science Fair.

Future Hattie Carnegies

ORIENTATION PROGRAM
for
BEGINNING TEACHERS
1961

SEPTEMBER 6

Greetings from the Superintendent . . . . . Dr. John M. Tobin
Superintendent of Schools

A Good Beginning . . . . . Mr. William F. Foley
Master of the Longfellow School

SEPTEMBER 11

School Records . . . . . Mr. William J. Cunningham
Master of the Russell School

SEPTEMBER 13

Report Cards . . . . . Mr. Francis J. Carney
Master of the Roberts School

SEPTEMBER 18

Character Training Through Discipline . . . Dr. Gunnar E. Haugh
Master of the Webster School

SEPTEMBER 20

An Attractive Classroom . . . . . Mr. Francis X. Mahoney
Master of the Fletcher School

SEPTEMBER 25

The Use of Supplies . . . . . Mr. John J. Balfe
Master of the Houghton School

SEPTEMBER 27

The Exceptional Child . . . . . Dr. Ruth F. Boland
Director of Pupil Services

OCTOBER 2

The Cambridge School System . . . . . Mr. Edward A. Conley
Master of the Charles G. Harrington School

OCTOBER 4

Teacher Benefits . . . . . Mr. John F. Toomey
Master of the Putnam School

OCTOBER 9

Making Use of Community Resources . Mr. Kenneth W. Goepper
Master of the Agassiz School

OCTOBER 16

The Guidance of Extra Class Activities . . Mr. Raymond G. D'Arcy
Master of the Peabody School

OCTOBER 18

The Teacher Personality . . . . . Mr. John J. Sullivan
Master of the Thorndike School

OCTOBER 23

The Teaching of Reading . . . . . Mrs. Mary R. Mulcahy
Master of the Haggerty School

OCTOBER 25

The Teaching of Arithmetic . . . . . Mr. Louis N. Fougere
Master of the M. E. Fitzgerald School

OCTOBER 30

The Teaching of Science . . . . . Mr. David E. Hockman
Master of the Morse School

NOVEMBER 1

The Music Program . . . . . Dr. James W. Anderson
Director of Music

NOVEMBER 6

The Art Program . . . . . Mr. Joseph L. C. Santoro
Director of Art

NOVEMBER 8

The Health Program . . . . . Mr. Charles H. Cremens
Director of Health and Safety Education

NOVEMBER 13

The Physical Education Program . . . . Mr. Joseph A. Kozlowsky
Director of Physical Education

NOVEMBER 15

Audio Visual Aids . . . . . Mr. Edward F. Hurley
Director of Audio Visual Education

NOVEMBER 20

Meeting the Emotional Need of Children . . Dr. Frank A. Straccia
School Psychiatrist

Our Beginning Teachers Attend Their Orientation Program.

Arts and Crafts Workshop for Elementary Teachers

SCHOOL and COMMERCE DAY

CHAIRMAN

C. VINCENT VAPPI, *President of the Cambridge Chamber of Commerce*

SPEAKERS

JOHN M. TOBIN, *Superintendent of Schools*
DAVID J. MURPHY, *President of the Senior Class, Cambridge High and Latin School*
MANUEL ROGERS, JR., *President of the Senior Class, Rindge Technical School*

GUESTS

JOHN J. CURRY, *City Manager of Cambridge*
EDWARD J. DANEHY, *Assistant Superintendent of Schools*
EDMUND C. BUCKLEY, *President of the Exchange Club of Cambridge*
J. LEO DELANEY, *President of the Kiwanis Club of Cambridge*
ROBERT J. GRAY, *President of the Rotary Club of Cambridge*
ROBERT R. SWEENEY, *Headmaster, Rindge Technical School*
JOHN J. SHEEHAN, *Headmaster, Cambridge High and Latin School*
DR. RUTH F. BOLAND, *Director of the Bureau of Pupil Services*

Comments from

Industrialists and Educators

The PRESIDENT of the CHAMBER of COMMERCE

"School and Commerce Day is a commendable undertaking because through the cooperative plan of this program high school seniors are afforded opportunities for wide and direct acquaintance with all the various phases of Cambridge industry — engineering, research, materials control, manufacturing, and administration."

C. Vincent Vappi

The PRESIDENT of the KIWANIS CLUB

"This remarkable program has the strong suport of Kiwanis because it enables high school students to develop thoughtful, constructive attitudes towards employment, thus making the transition from school to the world of work less difficult."

J. Leo Delaney

The PRESIDENT of the ROTARY CLUB

"By assisting high school youth with their vocational plans and by demonstrating to them much in advance of their graduation that there is in Cambridge the right job for them, School and Commerce Day renders an important service to the community."

Robert J. Gray

The SUPERINTENDENT of SCHOOLS

"The mutual interest of school and industry in our junior citizens is well reflected in this undertaking. The spirit of co-operation so apparent here augurs well not only for the future of our students but also for the continuing growth of our community. I congratulate all who have made this meeting possible."

John M. Tobin

The CITY MANAGER

"School and Commerce Day acts as the liaison between our schools and local industry. It serves to translate rather effectively, I believe, established theory concerning jobs and vocations into positive and practical action by bringing our students into close contact with the modern machines, products, structures, and processes that are so representative of Cambridge industry."

John J. Curry

The MAYOR of CAMBRIDGE

"As leaders in the community, it is our responsibility to assist, develop, and broaden the lives of our school youth to their utmost point of achievement, thereby helping to make the dreams of the future materialize. School and Commerce Day is an investment on the part of all of us in the future of the youth who depend on us for their success and happiness."

Hon. Edward A. Crane

The PRESIDENT of the EXCHANGE CLUB

"School and Commerce Day, in our humble opinion, does much to ensure that the occupational decision of our youth will be made as a result of plan rather than impulse, of knowledge rather than conjecture; and, therefore, has our firm endorsement."

Edmund C. Buckley

Waiting for Transportation, School and Commerce Day

The President of the Chamber of Commerce

Dignitaries, School and Commerce Day

The Mayor and Chairman of the School Committee

WRITING — *Manuscript or Cursive?*

Last month the Cambridge Public Schools began the teaching of manuscript writing in all first grades. The decision involved a fundamental change from the previously taught cursive writing. The change was made because extensive research in the area of learning to write indicates that manuscript writing is easier to learn and is more closely related to reading and spelling.

Briefly, manuscript letters compose the printed words found in books or your daily newspaper, while your signature on your driver's license is cursive writing.

Why is manuscript writing easier to learn than cursive? Simply because, educational researchers say, the letters are more easily recognized by children just beginning to write. The shape and form of manuscript letters always remain the same, whereas in cursive writing the letters may change when joined to other letters to make a word. Further, researchers have found that manuscript lettering is easier to write, since the movement of writing a word is divided up into a succession of separate movements. It does not consist of one long, complex movement in which the joining of letters is added to the strokes of the letters themselves, an essential skill in cursive writing. Since the form of the letters in manuscript writing is quite generally agreed upon — they are composed of straight lines and circles or part circles — the letters thus produced bear great similarity to the letters found on the printed page of a book. It is this similarity which brings into close relationship the arts of reading and writing and which has also been found helpful in learning to spell.

Children want to write when they enter school. They are eager and enthusiastic and the simplified form of manuscript letters enables them to achieve success in writing more rapidly than is possible in cursive writing. At first, a child's writing is crude, but with guided practice it gradually improves in accuracy. While the child's own desire to write serves as the chief motivation for improved form and efficiency of movement, he must have consistent and specific instruction and guidance from his teacher. It is she who will teach him how to form the letters, who will detect his errors, and allow him time to practice the correct forms.

His teacher will also understand that individual differences play a great part in the development of skill in writing. She knows that some children will write better than others. It is important that parents should also be aware of these differences and should not expect the same standard of achievement from all children. Fine muscular coordination is needed and this muscular coordination develops at varying rates within each child. Indeed, scientific studies have shown that the movement in handwriting, far from being a simple operation, is a delicate and complicated process. If adults always remembered this, they would be more patient with the young child and more tolerant of his early efforts.

If parents wish to help children at home with their beginning writing, they should know a few fundamentals of posture and position and be prepared to provide the child with the proper equipment. To begin, the writing space should be large enough for the child to rest both arms on the desk or table as far as his elbows. The desk and chair should be the correct height for the child. With the child facing the desk squarely, the paper should be placed directly before him, making certain that the lower edge of the paper is parallel to the front edge of the desk. The forearm should rest on the muscle pad at its largest part and should be able to move freely from left to right and to carry the hand across the page. The hand should rest on the last joint of the last two fingers and should slide easily upon them. The pencil should be grasped lightly by the thumb and first two fingers. The first finger should be on top, the second finger at the side and the same distance from the point, while the thumb will be positioned above the first finger. The fingers should grasp the pencil not less than an inch from the point of the pencil.

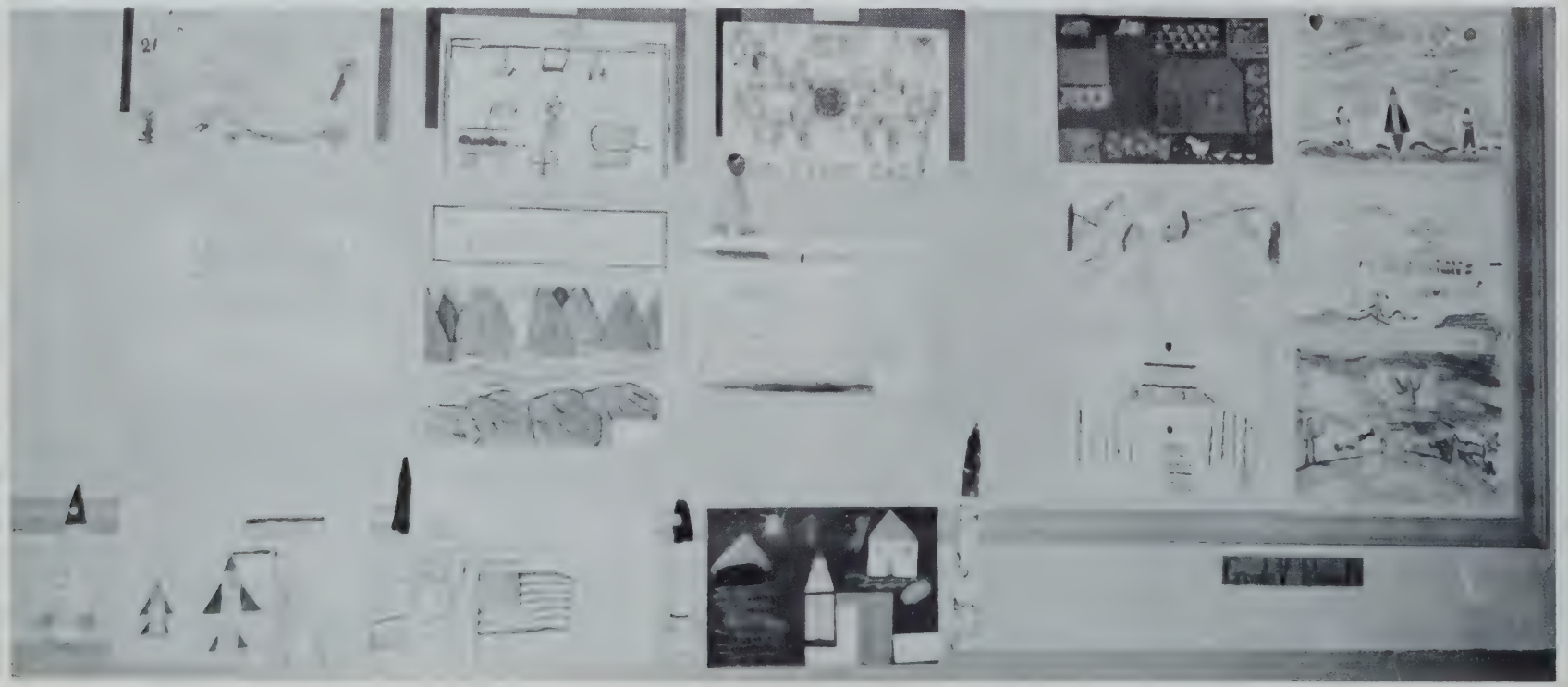
Will the teaching of cursive writing be continued in a higher grade? The answer is yes. Children will make the changeover from manuscript writing to cursive writing in the second half of the second grade. Experience based on careful experiment shows that the child, after learning manuscript writing, can more easily learn cursive writing at this grade level.

If manuscript writing is easier to learn, why not teach it solely as a final style? There is still some debate on this point but the burden of evidence seems to favor cursive writing. Research has shown that while writing with separate strokes is easier to learn, writing the words with continuous strokes is more efficient after it has been learned. In manu-

script writing, longer pauses occur during the writing of the separate letters. This, of course, slows the writing down. If an attempt is made to speed it up to equal cursive writing speed, it loses it characteristic merit, legibility. We read words as units, and a slight departure of the form of individual letters from the ideal form does not impair legibility to any serious degree. Further, cursive writing can be highly individualized, enabling it to attain a quality of beauty and character that is not possible in manuscript writing.

Is there a problem for children with a strong preference for writing left-handed? Before careful studies were made of this problem, it was asumed that right- and left-handedness were wholly learned and that there was no such thing as inborn hand preference. However, extensive studies by psychologists and physiologists have shown that a small proportion of persons have a left-handed trait, and that it is a natural, inherited one. Unless the child is much more skillful with his left hand than with his right, he should be encouraged, but not forced, to write with his right hand. Strongly left-handed children, however, should be encouraged to continue with this hand. Psychologists have produced some clinical evidence showing the possibility of speech disorders — stuttering, for example — if a strongly left-handed child is forced to become a right-handed writer. The simple adjustment of tilting the paper to the right for such children will avoid the awkward action of twisting his wrist over the top of the line.

Handwriting is more than a skill. It is also a means of communication, and a means of expressing meaning. This fact gives it special importance among acts of skill, and governs the methods by which it is acquired. When proper methods are used, handwriting then becomes a smoothly working and efficient means of expressing our thoughts.



SECONDARY SCHOOL WORKSHOPS

On February 14, 1961, the Cambridge School Committee approved a plan proposed by School Superintendent John M. Tobin that workshops for all teachers in the chief subject matter areas in the High Schools be established.

The proposal instructed the Heads of Departments in the High Schools to direct the activities of each workshop group toward a reappraisal of the old, and the development of new instructional material and emphases. Special emphasis was to be placed upon the enrichment of the curriculum in each subject-matter area in the regular classes.

Following this directive, workshops were established beginning in February and ending in June, 1961. The general chairmanships of each workshop group were assumed by the High Schools' Department Heads.

Since several major subject matter areas had sub-areas, it was found practical to assign committees to examine these sub-areas during their workshop endeavors. For example, Social Studies teachers divided into committees to examine the traditional emphases on Civics, World History, Problems of Democracy, and United States History. Similarly, Business Education teachers split into groups to deal with reappraisals of the High School subjects in General Business, Bookkeeping I and II, Stenography I and II, Typewriting 11-S, Junior Office Practice and Senior Office Practice.

The purposes which impelled each committee were explicit in the order initiating the workshops. They were:

1. A re-examination of present methods and materials in each subject under scrutiny.

2. The development, if possible, of new methods and materials of instruction.

3. The creation of meaningful and challenging enrichment activities in the regular classes.

Implicit in the directive were the goals of upgrading and modernizing course content, and of stimulating pupils to attempt substantially more difficult work.

Five sub-committees were set up in the Mathematics group. One committee set itself to the study and planning of an improved course of study in non-college preparatory classes. The remaining sub-committees commenced the development of new course outlines for the four high school grades in the college preparatory classes.

Their objectives were oriented toward the gradual modernization, modification, and improvement in the mathematics curricula for these classes.

The guideposts of the Mathematics workshop were determined by the recommendations on the important changes in the points of view of instruction, and major changes in teaching emphasis contained in the report of the College Entrance Examination Board's Commission on Mathematics. Briefly stated, these changes are directed toward an intensive study of mathematics in terms of structure, sets and patterns.

The committee reports were submitted as the "Workshop Report of the Department of Mathematics."

The Science Workshop organized into three sub-committees probing the traditional content in the Department's high school courses in General Science, Biology, and College Chemistry. Their purposes were the same as those of all other groups in workshop sessions. Their goals were the updating of the course content to include modern topics and emphases within these areas of Science. For example, General Science I is presently stressing the problems of space travel within a unit on Astronomy. The problems of space biology are dealt with in depth in the new course content in Biology classes. Additionally, the mounting problem of the growth of radiation in the world and how it relates to the biological processes is given added emphasis.

The workshop group in College Chemistry II examined the basic texts in use in the High Schools and has added a stronger emphasis on atomic structure, with particular emphasis on extra-nuclear structure. To enable the student to comprehend such modern topics, he is introduced to s s p, d, f, sub-levels and molecular orbitals. Moreover, a challenging enrichment activity has been initiated by several students whereby they are gathering examples of every known mineral that the earth possesses.

The English Departments of both high schools combined into one workshop, and divided into two sub-committees. One discussed and evaluated the present Reading List in the High Schools, and prepared a newer, up-to-date list for immediate use, while the second group prepared new workbooks for each grade in the high schools. One

teacher was assigned the task of preparing a teacher's handbook for the English classes.

The Business Education Workshop group split into subject committees, and began drafting new courses of study. Each committee examined in detail the course of study in use up to the commencement of the workshop, and began the modernization of its contents.

In General Business, the preparation of the new course of study included several enrichment features to this vital freshman subject. To buttress the theory taught in class, for example, field trips were suggested as enrichment activities. Such trips were to be taken to banks, insurance companies, post offices, telephone company, train terminal, etc. Thus, the pupils could see "theory in action."

Junior year Bookkeeping I and senior year Bookkeeping II workshops combined and emerged with correlated goals to be achieved in each subject. The Bookkeeping I course of study was revised and articulated more closely with the course of study in Bookkeeping II. Fruitful changes in selectivity of students are involved in a new prognostic test to be administered to all sophomores enrolled in the Business course. The results will guide the Business Education department in the selection of those pupils who indicate a potential ability in bookkeeping.

In the social studies, extensive changes were made in the curricula of Civics, World History, Problems of Democracy, and United States History. A new unit, International Relations, was introduced in Civics I, grade 9. Comparison and contrast of Western democratic principles with the autocratic tenets of Communism is made within this unit.

The curriculum revision committees in Social Studies also updated bibliographies and urged greater use in current events of the media of radio, television, magazines, periodicals and newspapers.

The tasks undertaken by the Workshop committees were substantial in scope and achievement. Their results and recommendations are now an integral part of new and improved instruction in Cambridge's public high schools.

High and Latin School Students Watch Tachistoscope in Their Developmental Reading Laboratory

IN SCHOOL COMMITTEE

In School Committee — October 3, 1961 — it was voted that at the first meeting in November the Superintendent shall provide the members of the School Committee with a job description of all major professional positions.

In compliance with the School Committee Order dated October 3, 1961, I submit the following report:

Each Headmaster and each Master is the educational leader of the school he administers. This leadership must be exercised at all levels: the child, the children; the teacher, the teachers; the parent, the parents; the citizen, the citizens. Through him and in him is the responsibility of achieving this leadership as he carries out the rules of the School Committee and the directives of the Superintendent of Schools. This responsibility necessarily involves supervisory and administrative duties. Moreover, this responsibility must be at both the formal and informal level — efficiency and morale are both factors to be considered — for however successful the formal program it will fail without a positive informal environment.

THE HIGH SCHOOL HEADMASTER

A. Administration in its Management and Organizational Aspects.
The Headmaster has the final responsibility for:
1. establishment of general policies within the school to implement the rules of the School Committee and directives of the Superintendent of Schools;
2. maintenance and security of the building;
3. safety of all personnel;
4. admission, placement, and discharge, exclusion of pupils — Assitant Headmasters and Deans carry out the program but the responsibility is that of the Headmaster;
5. establishment of procedure for pupil records and supervision of the procedure;
6. requisition and distribution of supplies;
7. organization of classes;
8. scheduling of classes;
9. recruitment of potential teachers in specialized areas;
10. conferences with Directors in specialized fields for curriculum guidance and for course of study purposes;
11. co-ordination and supervision of the lunch program;
12. liaison with colleges;
13. liaison with elementary schools;
14. liaison with industry;
15. supervision of attendance;
16. recommendation of teachers for reappointment;
17. recommendation of teachers for tenure.

B. Administration in its Human Relations Aspects:
The Headmaster has the final responsibility for:
1. discipline;
2. school-home relationship;
3. creation of an environment conducive to quality in teaching and in learning

C. Supervision:
The Headmaster has the final responsibility for the instruction within the school:

D. Professional Responsibility:
The Headmaster serves as a resource leader on many committees — scholarship, curriculum, P.T.A., etc.

E. Community Responsibility:
The Headmaster represents the school and frequently the school system in many community organizations.

THE HIGH SCHOOL ASSISTANT HEADMASTER

The Assistant Headmaster serves as the Headmaster's representative for a particular class. He is in charge of the entire class and is responsible for its activities and discipline under the guidance and direction of the Headmaster.

Each Assistant in addition serves as the guidance counselor for the boys of the particular class. He must, therefore, be familiar with the physical, emotional, intellectual and social needs of adolescents. He must also be aware of curriculum trends, course content, and advances in methodology. The Assistant Headmaster is responsible for the discipline of his particular class — both girls and boys — and for the overall

administration of the class. The duties of the Assistant Headmaster in addition are similar to those of the Deans, as outlined in report of Miss Ruth E. Boland, Director of the Bureau of Pupil Services, dated May 2, 1955, attached.

THE HEADMASTER'S ASSISTANT IN THE HIGH SCHOOLS

The Headmaster's Assistants are the specialists in various subject areas. It is their responsibility to be familiar with the content of their field, current trends in the teaching of the subject, and the material available for maximum achievement in the subject. Not only must they be expert in their subjects but they must also be aware of the relationship of their subject to the total curriculum. They serve as staff to the Headmaster and as line to the teachers in their departments. In this latter area they serve as the Master teacher for a given subject.

A. Administrative duties:
   1. plans the teaching program for each teacher in the department;
   2. assists each teacher in obtaining necessary supplies and equipment;
   3. conducts group meetings, both intra- and inter-school;
   4. reviews/selects books, supplies, etc. and maintains proper records of same;
   5. evaluates teacher performance;
   6. selects appropriate testing material in consultation with Dr. Boland.

B. Educational duties:
   1. prepares and revises course of study;
   2. conducts workshops;
   3. adjusts courses from year to year to meet the varying needs of the students — for example: Academically Talented Classes this year;
   4. teaches at least one class daily and substitutes for absentee teachers;
   5. attends educational conferences.

C. Supervisory duties:
   1. observes, evaluates and assists each member of his department in his teaching presentation;
   2. conducts group meetings on techniques;
   3. confers regularly with each of his teachers on problems and trends;
   4. places and supervises student teachers.

THE ELEMENTARY SCHOOL MASTER

The Elementary School Master serves the School Committee, the Superintendent of Schools, the teachers, pupils and parents of his school district as educational leader and educational resource person. He is thoroughly familiar with the principles of child, early adolescent, and educational psychology; with the content, scope and sequence of the several disciplines taught in the elementary schools; with the materials of instruction in use and available; and, with the promising as well as the proven instructional methods. The Superintendent of Schools may, on occasion, call upon him to give wider scope to his professional competencies, experience and judgment by serving on a curriculum, or other, committee. He evaluates the performance of substitute and beginning teachers and advises the Superintendent with reference to their continued employment and reappointment.

DUTIES

A. Elementary School Administration in its Management and Organizational Aspects:

The Elementary School Master is the person in his school building who bears first and final responsibility for:

   1. the implementation of the Rules of the School Committee and the directives of the Superintendent of Schools;
   2. the maintenance, cleanliness and security of his building and its contents;
   3. the safety of all personnel;
   4. the admission, placement, discharge, exclusion, and attendance of pupils;
   5. the prompt, accurate completion and maintenance of pupil personnel records and all correspondence related to the same;
   6. scheduling variations in the daily schedule;
   7. the assignment of co- and extra-curricular activities to staff members;
   8. the requisitioning, receipt, storage and distribution of textbooks, instructional and maintenance supplies.

B. Elementary School Administration in its Human Relations Aspects:

The Elementary School Master is the person in his building who bears first and final responsibility for:

1. discipline: the character training and good order which is required if the work of the school is to be accomplished;
2. morale: the establishment and maintenance of an atmosphere and spirit which promotes quality in teaching and learning;
3. facilitating positive school-home relationships through the PTA, Parent-Teacher-Pupil conferences, and friendly co-operation in the neighborhood;
4. facilitating positive relationships between his own school's staff and the Directors and their teachers;
5. guidance.

C. The Elementary School Master and Supervision:

The Elementary School Master is the person in his building who bears first and final responsibility for the improvement of instruction — especially in those subject-matter areas for which there is no Director. The Master is the resource person — the individual turned to by the classroom teacher for assistance, the person who suggests promising practices and materials. He discharges his responsibilities as supervisor by:

1. observational visits to classrooms;
2. conferences with individual teachers;
3. group conferences (Teachers' or Staff Meetings);
4. discussions with teachers concerning the abilities, aptitudes, and needs of individual pupils;
5. selection and development of instructional materials;
6. interpretation of standardized group test results and their implications for instruction;
7. recommendation of teachers for tenure.

DIRECTOR

Art Education; Audio-Visual Education; Health and Safety Education; Music Education; Physical Education; Pupil Services.

The Director serves the members of the School Committee and the personnel of the School Department as the resource person, the educational leader in his special field. He implements the policies of the School Committee by carrying out the directives of its Executive Officer, the Superintendent of Schools. He is the Department's consultant on matters concerned with the psychology, subject-matter, methods, materials, and trends in his special field. He is the master teacher in his area, concerned with the in-service training of the members of his own department whose classroom demonstrations he observes and supervises, and of the classroom teachers whose work in his area he also observes. He serves as adviser to the Superintendent in matters concerned with the pre-service preparation and experience to be required of candidates for positions in his department, with the appointment and reappointment of teachers in his department.

DUTIES

As an administrator concerned with organization and management, the Director:

1. schedules the classroom visits of the members of his Department;
2. makes recommendations to the Superintendent, the Headmasters and the Masters relative to the kinds, the quality and the quantity of instructional materials and supplies required in the educational program in his special field;
3. makes recommendations as to time allotments at the various grade levels for the work in his special field.

As an administrator concerned with Human Relations Problems, the Director:

1. takes positive steps to establish and maintain within his own Department that atmosphere and spirit of mutual helpfulness and support which promotes quality in teaching and learning;
2. takes positive steps to facilitate good relationships between his Department and the various schools.

As a supervisor concerned with the improvement of instruction, the Director:

1. works on curriculum development committees;
2. observes and criticizes positively the classroom demonstrations of the teachers in his department;
3. observes the work of classroom teachers, offers, in a positive manner, suggestions for improvement; suggests to the Headmasters and Masters strengths and weaknesses of classroom teachers and ways of alleviating the latter;

4. conducts workshops in his special field for Department personnel;

5. makes himself available for conferences with individual teachers; conducts Staff Meetings with members of his own department; and, makes himself available for Staff and PTA Meetings in the various schools.

DEAN OF GIRLS

The Dean serves as the guidance counselor for the girls of a particular class in high school (freshman, sophomore, junior, or senior).

She is thoroughly familiar with the physical, emotional, intellectual and social needs of adolescent girls. She is trained in modern techniques of interviewing and counseling and uses them with sympathy and understanding.

She works closely with pupils, teachers and with parents.

DUTIES

Her duties involve the following areas of guidance.

1. Educational and Vocational Counseling:
   a. Long range educational and vocational planning with each individual pupil in her class.
   b. Programming.
   c. Individual pupil adjustment including special studies of the needs of individual pupils who may have physical, emotional or intellectual problems.
   d. Frequent consultation with parents and teachers concerning the above.
   e. Maintains a file of catalogues and scholarship information for pupil consultation for use in counseling. Is familiar with college entrance requirements and acquainted with college admission personnel.
   f. Participates in cooperative program between grammar and high schools and attends the parent-teacher-pupil night in the elementary schools to acquaint them with high school requirements and offerings.

2. Investigation of Attendance and Behavior Problems:
   a. Checks daily attendance sent to her by home room teachers for purpose of noting habitual absentees.
   b. In seeking the cause of individual attendance and behavior problems she makes use of the available data on the cumulative record.
   c. Confers with parents.
   d. Arranges for medical, psychological, psychiatric and social services to determine cause and cure of anti-social behavior.
   e. Interprets above to parents, teachers, and pupils.
   f. Follows through on recommendations.

3. Cumulative Records:
   a. Cumulative records are kept in the Dean's office and are available to teachers, masters, heads of departments for consultation.
   b. She supervises the recording of data on cumulative record.
   c. She keeps anecdotal records of counseling interviews which she summarizes and places on record.

4. Use and Interpretation of Standardized Tests in Counseling:
   a. Intelligence.
   b. Achievement.
   c. Personality.
   d. Tests of special aptitude.
   e. Interest tests.

5. Use of School and Community Resources:
   a. Bureau of Pupil Services.
   b. Special classes.
   c. Lip reading classes.
   d. Speech therapy.
   e. Social agencies.

6. Case Studies and Conferences:
   Works with Headmaster and other school personnel on case studies involving individual pupil problems.

7. Membership in professional organizations:
   Massachusetts Associations of Deans.
   Guidance Associations

8. May represent the school system in community organizations.

Elementary Science Committee

Cambridge School Department

1700 Cambridge Street

Cambridge, Massachusetts

October 18, 1961

To: Elementary Masters and Principals

So that we may obtain their criticisms of the tentative Science Curriculum outline distributed in January of this year, the Science Committee is planning meetings with teachers of Grades One through Six.

Will you choose one teacher from each grade to represent the other teachers of that grade at meetings to be held at the Morse School on Tuesday at 3:00 P.M. on the following schedule?

Grade Six	November 14
Grade Five	November 21
Grade Four	November 28
Grade Three	December 5
Grade Two	December 12
Grade One	January 9

We would be assisted greatly if all the teachers of each grade in each school held a joint critique prior to the meeting scheduled at the Morse School. The summary of their criticisms would provide the latter meetings with common problems for discussion.

The Elementary Science Committee

David E. Hockman, Chairman

Elementary Science Committee

Cambridge School Department

1700 Cambridge Street

Cambridge, Massachusetts

October 18, 1961

To: Elementary Masters and Principals

Last January copies of a tentative Science Outline for Grades One through Six were distributed to all schools.

The Foreword requested each teacher to enter in the space provided any additional references, experiments or audio-visual aids which he or she found effective so that information could be gathered together and correlated.

As of March 2, 1962 the present outlines will be collected from the schools to provide our committee with a basis for further refinement of the Science Outline.

Will you bring this to the attention of the teachers in the grades affected?

The Elementary Science Committee

David E. Hockman, Chairman

Learn To Keep House, Have Fun

That's What Cambridge Youngsters Do

"Welcome To Homemaking" reads the bulletin board poster in the Home Economics Room of the attractive, modern Harrington School in Cambridge.

Here, in four model kitchens that would be the envy of any proud homemaker, 40 youngsters in grades 5, 6, 7 and 8 learn the fundamentals of homemaking.

Their teacher is attractive Miss Joan Lawlor. She was graduated from Framingham State College in 1958 and did graduate work at the University of Michigan.

They Learn Fundamentals

The little homemakers of tomorrow learn the fundamentals of home management, cooking, and sewing in a large, attractively-decorated room that includes:

Four kitchen-cabinet-work-counter units
Two gas stoves
Two electric stoves
A washer and a dryer
Four dining room tables and a conference table
Various closets and storage compartments
A refrigerator

The young ladies share "salad secrets" and tricks of the trade in the art of making their own clothes.

They are taught the proper manner in which to set a dining table, make a bed and prepare the laundry.

And it's no school of "make-believe."

They Eat What They Prepare

The youngsters actually prepare meals under the watchful eyes of Miss Lawlor.

"We have to do a good job in cooking class," said one little miss. "After all, we have to eat all that we prepare."

Besides their classroom activities, the girls each are assigned daily "housekeeping duties."

A posted schedule details the girls who must clean up each work unit, shut off the stove burners, dust and sweep, etc.

The Home Economics class is a popular one — and so is their teacher.

"Please put her name in the paper," said one youngster.

"And put her picture on page one," said another.

"Homemaking," it would seem, also involves learning how to make friends with teacher.

Measuring up to standards of sewing course at Harrington School in Cambridge are, from left: Margaret Corcoran, Linda Perry and Maureen Carson.

Better batter beater is Concetta Vaudo, sixth-grade pupil at the Harrington School in Cambridge, where girls learn home-making secrets amid ideal surroundings. Sewing also is part of the course.

Home Economics teacher Joan Lawlor of the Harrington School in Cambridge supervises work of Agnes Ponte. Miss Lawlor teaches all phases of home management to the pupils of the fifth, sixth, seventh and eighth grades.

It's Greek To Them – Or Maybe It Isn't

Cambridge Students Learning The Language

Of Their Ancestors

By Gale Kredenser

Twenty Cambridge High and Latin students are staying after school each day to learn the language of their ancestors. And, while it may be Greek to you, it isn't to them.

It is Greek — ancient Greek, to be exact. But these students, who speak modern Greek at home with their families, find that the main difference lies in pronunciation. They have a head start because they can already read the language.

The course is pilot project, begun at the request of parents and Fr. Arthur Metaxas, pastor of the Greek Orthodox Church of St. Constantine and Helen, Cambridge.

"They thought is would be good for us to have some background in ancient Greek," explained Anastasia Asprakis.

Speak Greek In Their Homes

"We're not finding it too difficult, because we speak Greek at home," added another student.

The course is taught by James Landrigan, who also teaches Latin at the high school.

"If this course is successful, it may be added to the regular curriculum," said principal John J. Sheehan. The school now teaches six languages in addition to English: French, German, Italian, Latin, Spanish, and Greek. The course in Russian taught for two years was dropped this year, but may be resumed.

Opinion Of Today's Teen Ager

Yes, Cheating Goes On, But It Can't Help You

The president of Cambridge High and Latin's honor society, "K.B.," was very candid

"Cheating?" said 16-year-old Donna Gibson. "Sure, it goes on — I suppose it always will. Every teacher has his means of combating it.

"I guess that the most effective way to prevent cheating is to have a time limit. You've got to know the answer right away, and if you don't it's too bad. There's no time to look at notes or try some other method.

"There are all sorts of 'defenses' for it," added the dark-haired senior. "I guess the most common one is 'Well, I knew it, but I just couldn't think of it at the time.' That's always a good one.

"But cheating only hurts you," Donna, who stands 10th in her class, added. "Suppose you have to take college boards — if you've been cribbing — relying on little notes, you'd be lost because you'd find that you have not learned anything."

Donna is one of the most active students at Cambridge High and Latin. A member of the executive board of the dramatic club, she has a role in the club's latest production Moss Hart's "Light Up the Sky," to be presented in November

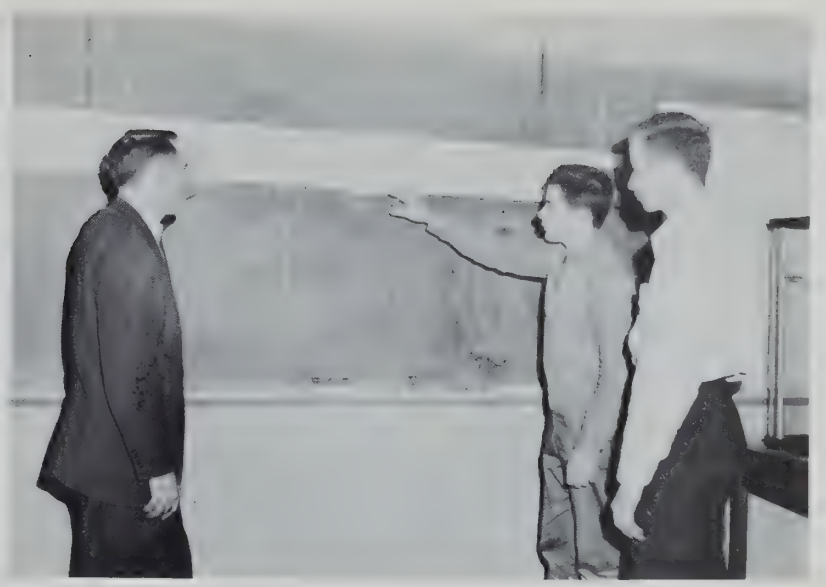
The brown-eyed miss is sports conscious, too. She's a member of the Girls Athletic Association, forward on the girls' basketball team and a swimming enthusiast.

Donna is also a member of the German Club.

Outside school, Donna is a member of two CYO groups — St. Peter's in Cambridge and Sacred Heart, Watertown, and a member of the YWCA.

She loves to read and to bowl. A former volunteer at Mt. Auburn Hospital, Donna plans to attend college but hasn't decided on either a college or a career.

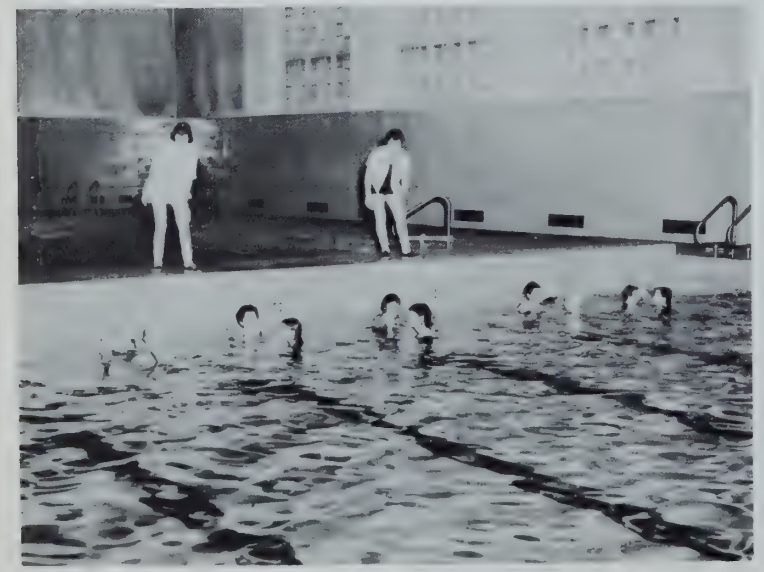
She is the daughter of Mr. and Mrs. Thomas F. Gibson of 150 Larch Rd., Cambridge.



Samples of the Meaning of "Technical" in the Name, "Rindge Technical School".

Towing a Disabled Swimmer

Artificial Respiration



Breaking a Lock

Last one in . . .

Statistical Tables

A Southern Plantation

Statistics of Our Schools by Classes 1961

1961 Class Statistics

ENROLLMENT CHART BY GRADES

Grade	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
I	1,166	1,198	1,079	1,017	1,014	998	1,046	1,066	1,086	1,102
II	841	976	969	891	871	867	886	887	904	894
III	812	827	921	917	877	821	817	848	851	877
IV	842	779	751	878	896	838	797	822	808	812
V	799	801	747	701	852	858	838	763	822	799
VI	689	782	759	710	660	831	836	817	759	809
VII	640	677	749	707	693	662	791	804	798	746
VIII	611	584	626	679	667	655	635	736	740	720
IX	815	796	790	790	933	796	772	693	887	981
X	708	741	698	640	722	805	775	742	661	852
XI	689	595	666	567	477	639	749	724	724	573
XII	601	568	550	559	505	466	549	618	606	541
P.G.	15	21	14	8	29	23	21	15	17	12
Ungraded							148	168	126	196

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.	Total
High and Latin	738	636	411	364	8	2157
Rindge	243	216	162	177	4	802
Boys' Vocational	Ungraded					78
Girls' Vocational	Ungraded					35

October 1, 1961

A View of the Cambridge High and Latin School's New Electronic Language Laboratory

NUMBER OF PUPILS in the GRAMMAR SCHOOLS

December, 1961

Grade	*Boys*	*Girls*	*Total*
Eighth	362	355	717
Seventh	376	360	736
Sixth	420	381	801
Fifth	418	378	796
Fourth	398	408	806
Total	1974	1882	3856
Ungraded	143	81	224
Total	2117	1963	4080

NUMBER OF PUPILS in the PRIMARY SCHOOLS

December, 1961

Grade	*Boys*	*Girls*	*Total*
Third	448	406	854
Second	444	437	881
First	578	520	1098
Total	1470	1363	2833

NUMBER OF PUPILS in the KINDERGARTEN

December, 1961

Boys	684
Girls	622
Total	1306

Distribution of Pupils by Age and Grade . 1961

AGES

DISTRIBUTION OF PUPILS BY AGE AND GRADE ON OCTOBER 1, 1961

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Over 21	Totals
Kdgn.	M	284	390	10																	684
	F	295	334	6																	635
I	M		137	370	64	10	2														583
	F		168	301	45	3	2														519
II	M			100	239	83	27	4	1												454
	F			121	257	38	17	4	1	1		1									440
III	M				104	232	93	18	6	2											455
	F				121	213	60	23	4		1										422
IV	M					79	201	75	35	10	1										401
	F					114	229	46	19	2	1										411
V	M						98	208	76	31	5	2									420
	F						103	203	57	16											379
VI	M							77	207	83	49	13	1								430
	F							106	170	67	33	3									379
VII	M								69	195	71	34	9								378
	F								99	185	48	27	9								368
VIII	M									85	167	80	27	2							361
	F									98	181	56	21	3							359
IX	M									1	108	269	94	26		1					499
	F									1	143	238	85	13	2						482
X	M											133	185	73	30	3	2				426
	F											152	185	64	22	3					426
XI	M											2	60	163	73	16	3				317
	F											1	94	112	35	13	1				256
XII	M													70	132	62	23	3	2		292
	F												1	102	114	28	4				249
P.G.	M														3	2	1			1	7
	F														4	1					5
Voc. Schs.	M										2	22	34	17	2	1					78
	F											6	18	9	2						35
Ungraded	M			2	3	8	10	13	16	19	26	13	11	1							122
	F			2		3	6	8	12	9	9	10	11	3	1						74
Totals	M	284	527	482	410	412	431	395	410	426	429	568	421	352	240	85	29	3	2	1	5,907
	F	295	502	430	423	371	417	390	362	379	416	494	424	306	180	45	5	—	—	—	5,439
																				Grand Total	11,346

AGE GROUPS

5 years or over and under 7

Boys 1,009 Girls 932 Total 1,941

7 years or over and under 16

Boys 3,902 Girls 3,676 Total 7,578

CAMBRIDGE HIGH AND LATIN SCHOOL GRADUATE FOLLOW-UP STUDY

Class of 1961

		Per Cent
Number of Graduates	379	
Questionnaires Sent	379	
Number of Responses	374	98.68%
Further Education	124	32.72%
Colleges and Universities	75	
Technical Institutes	4	
Junior Colleges	8	
Prep Schools	5	
Business Schools	16	
Nursing Schools	6	
Religion	1	
Hairdressing	1	
Practical Nursing	1	
Post Graduates	7	
Total	124	
Employed (full time)	213	56.20%
Employed (part time)	7	1.85%
Armed Services	15	3.96%
Married (at home)	3	.79%
Ill health	1	.26%
Unemployed	11	2.90%
Moved (no further address)	5	1.32%
Total	255	100.00%

CAMBRIDGE HIGH AND LATIN SCHOOL DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities

Barrington College	2	Emmanuel College	3
Bentley College	1	Eastern Nazarene College	1
Boston University (Sargent School)	1	Framingham State Teachers	1
Boston University	9	Franklin and Marshall College	2
Boston College	3	Fitchburg State Teachers	2
Boston State Teachers	5	Harvard University	5
Calvin Coolidge College	1	Jackson College	2
Carnegie Institute of Technology	1	Lowell State Teachers	1
Carson-Newman College, Tenn.	1	Mass. Bay Community College	2
Cornell University	1	Mass. College of Art	1
		Mass. Institute of Technology	2
New England Conservatory of Music	1		
Northeastern University	5		
Norwich University, Vt.	1		
Radcliffe	1		
Regis	1		
Rivier College, N. H.	1		
Sacramento City College	1		
Salem State Teachers	2		
Sarah Lawrence	1		
Suffolk University	1		
Tufts	4		
University of Massachusetts	4		
University of Pennsylvania	1		
University of California at Berkeley	1		
University of Miami	2		
Wheaton College	1		

Junior Colleges

Cambridge Jr. College	1
Chamberlayne Jr. College	5
Garland Jr. College	1
Lasell Jr. College	1

Prep Schools

Cambridge Academy	1
Huntington Prep	1
New Preparatory	1
Newman Preparatory	2

Technical Institutes

Wentworth	3

Business Schools

Cambridge School of Business	1
Chandler School for Women	7
Boston School of Business Education	1
Bryant and Stratton	1
Burdett College	1
Bay State Academy	2
Comptometer School	1
Florence Utt IBM School	1
Pierce Secretarial School	1

Nursing Schools

Boston City Hospital	1
Mass. General Hospital	1
Mt. Auburn Hospital	2
Peter Bent Brigham	1
Whidden Memorial Hospital	1

Practical Nursing

Lemuel Shattuck Hospital	1

Post Graduates

Matignon	1
C.H.L.S.	6

Religion

St. Philip Neri School	1

Miscellaneous

Dale Academy of Hairdressing	1
Carnegie Institute of Medical Technology	1

EMPLOYED

Obtained Jobs Through Placement Office	68	31.92%
Obtained Jobs from Other Sources	145	68.08%
Employed		
College Course	20	
Commercial Course	182	
General Course	9	
Home Economics Course	2	
Total	213	

Types of Employment

Apprentice Machinist	1
Apprentice Seamstress	1
Assistant Receiver	1
Attendant Nurse	1
Bank Teller	1
Biller	2
Bookkeeping Machine	3
Bookkeeper	8
Bus Boy	1
Camera Repair	2
Cashier	3
Clerical	27
Dance Instructor	2
Drafting Clerk	1
Electronic Typing	1
Factory Work	8
File Clerk	3
Film Inspector	1
I B M Operator	14
Legal Secretary	2
Laboratory Technician	1
Library Work	1
Messenger	2
Mail Clerk	3
Maintenance Work	5
Nurse's Aide	5
Office Machines Operator	1
Office Work	35
Operating Room Attendant	1
Photo-engraving	1
Receptionist	2
Saleswork	7
Secretarial	21
Shipping	3
Stenographer	6
Stock Work	2
Switchboard	3
Telephone Operator	4
Transcribing	1
Truck Driver	2
Type Setter	1
Typist	20
Voicewriter Operator	1
Waitress	1
Warehouse Work	1

Employers of 1961 Graduates

Ace Safety Envelope Co.	1
A & R Hyde & Sons Co.	1
Adams Bakery, Jackson, Ohio	1
Alles Corporation	1
American Electroplating	1
Angier Adhesives	1
Atlantic National Ins. Co.	1
American Biltrite Co.	1
Austin-Hastings	4
Big Burger Ranch	1
Banda of Mass.	1
Boston Athletic Shoe	1
Boston College	1
Boston Woven Hose	1
Boston University	2
B B Chemical	1
Bradford Novelty	3
Blue Cross-Blue Shield	1
Lester L. Burdick, Inc.	1
Dr. Henry C. Beele, Dentist	1
Brewer & Lord, Ins.	1
Cambridge Trust Co.	1
Cambridge Furniture Co.	1
Cambridge Gas Co.	1
Carter's Ink	2
C I T Corporation	1
Credit Bureau of Greater Boston	1
Connecticut General Life Ins.	1
Children's Hospital	1
Commonwealth of Mass.	1
Cronin Brush Co.	1
Cushman Bakery	1
Deran Confectionery	2
Desk-Kafe Automatic Vending Machine	1
Dixie Cup	1
Documat Inc.	1
Dick Adin Studio, N.Y.C.	1
H. U. Dowd Co.	2
Eastern Co.	1
Elm Farm	1
Employer's Mutual of Wausau	1
Electrical Supply Co.	1
Employee's Liability	1
Federal Liquors	1
Felton & Son, Inc.	1
First National Bank of Boston	7
Fresh Pond Supermarket	1
Garland Knitting Mills	1
Charles Gilman & Sons, Liquors	1
Greylock Confectionery Co.	1
Thomas A. Glennon, Atty.	1
Harris Stamp Co.	1
Harvard Trust Co.	12
Harvard University	8
Harvard Cooperative Society	2
Industrial Stainless Steel	5
International Dance Studios	1
I G A Store	1
John Hancock Life Ins.	11
James E. McCusker Co., Sht. Metal	1
Jordan Marsh Co.	2
James F. Brine Co. (Sporting Goods)	1
Lechmere Sales	1
Lilly Construction	1
Liberty Mutual	4
Little Brown & Co.	1
Lumbermen's Mutual Casualty	1
Lumber Mutual Fire Ins. Co.	1
May Dept. Store, Los Angeles	1
McLean Hospital	1
Mico Instrument Co.	1
Middlesex County	6
Minneapolis-Honeywell	1
Mass. General Hospital	2
Metropolitan Savings & Loan Bank	1
Morse Shoe Stores	1
Mount Auburn Hospital	2
National Shawmut Bank	8
Necco Candy	1
Negea Serv. Corp.	1
New England Merchant's Natl. Bank	1
New England Mutual Life Ins.	4
New England Telephone	11
New England Book Binding Co.	1
New England Fire Ins. Rating Assoc.	1
New Hampshire Ins. Co.	1
Polaroid	7
Peter Bent Brigham Hospital	1
Proctor & Gamble	1
Phelps Dodge Copper Products	1
Philip Richenburg, Ins.	1
Radcliffe College	1
Radio Shack	1
Riverside Press	3
Raymond's Dept. Store	1
Raytheon	1
Revelation Bra	2
Signet Club Plan	3
Scott Carlisle, Pub. Acct.	1
S. Rosenthal Sons Inc.	1
Shea Dry Cleaners	1
Sun Valley Mfg. Co.	1
Sun Life Assurance Co. of Canada	3
State Street Bank & Trust Co.	2
Thomas Long Co., Jewelers	1
TrailwaysTravel	1
The McLaughlin Bros., Attys.	1
United Carr Fastener Corp.	1
United Farmers	1
United Business Service	1
U.S. Government	3
F. W. Woolworth Co.	2
Welch Candy	3
Wright Bros.	1
F. S. Webster Co.	1

ANALYSIS OF GRADUATES — Class of 1961

Special Study by Course

			Per Cent
Graduates from College Course		128	33.77%
College	75		
Other Schools			
Technical Institutes	4		
Junior Colleges	4		
Prep Schools	5		
Business Schools	4		
Nursing	5		
Employed (full time)	20		
Employed (part time)	1		
Armed Services	3		
Post Graduates (CHLS)	4		
(Matignon)	1		
Unemployed	1		
Moved	1		
Graduates from Commercial Course		231	60.95%
Junior Colleges	4		
Business Schools	12		
Nursing	1		
Armed Services	9		
Religion	1		
Hairdressing	1		
Post Graduates (CHLS)	2		
Married (at home)	3		
Employed (full time)	182		
Employed (part time)	2		
Unemployed	9		
Moved	4		
Graduates from General Course		17	4.49%
Employed (full time)	9		
Employed (part time)	2		
Armed Service	3		
Practical Nursing	1		
Ill Health	1		
Unemployed	1		
Graduates from Home Economics Course		3	.79%
Employed (full time)	2		
Employed (part time)	1		

RINDGE GRADUATE FOLLOW-UP STUDY

Class of 1961

			Per Cent
Number of Graduates		164	
Questionnaires Sent		164	
Number of Responses		163	99.39%
Further Education (full time)		38	23.17%
Colleges and Universities		19	
Technical Institutes		6	
Junior College		1	
Prep Schools		6	
Business School		1	
Miscellaneous		2	
Post Graduates (R.T.S.)		3	
	Total	38	
Employed (full time)		82	50.00%
Armed Services		31	18.90%
Employed (part time)		3	1.83%
Unemployed		9	5.49%
Moved (no further address)		1	.61%
	Total	164	100.00%

RINDGE
DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities		19
Boston College	1	
Boston University	5	
Harvard	1	
Knox College, Illinois	1	
Mass. College of Art	1	
Mass. Institute of Technology	1	
Northeastern University	4	
Philadelphia College of the Bible	1	
Southern Connecticut State College	1	
Tufts	1	
University of Mass.	1	
Winston-Salem Teachers College, North Carolina	1	
Junior Colleges		1
Chamberlayne Jr. College	1	

Prep Schools		6
Brewster Academy, N. H.	1	
Cambridge Academy	1	
New Preparatory	1	
Newman Prep	3	
Technical Institutes		6
Franklin Institute	2	
Industrial Tech	1	
Wentworth	3	
Business Schools		1
Bryant and Stratton	1	
Miscellaneous		2
New England Linotype School	1	
Radio, Electronics and Television	1	
Post Graduates		
Rindge Technical	3	

EMPLOYMENT DISTRIBUTION OF GRADUATES

RINDGE

Apprentice Printer	1	Machinist	2
Apprentice Machinist	2	Mail Clerk	3
Assembler	7	Machine Shop Work	2
Cabinet Making	2	Offset Pressman	1
Car Reconditioner	1	Optical Lenses Work	2
Cashier	1	Paper Cutter	1
Clerical	1	Repair Man	1
Control Research	1	Upholsterer	3
Construction	1	Salesman	3
Delivery	4	Shipper	5
Electronic Wiring	1	Store Clerk	1
Electronic Plater	1	Stock Technician	2
Factory Work	3	Stock Clerk	4
Gauge Room Work	1	Surveyor	1
Gas Station Attendant	1	Sheet Metal Work	1
General Work	4	Specialized Assembler and Tester	1
I B M Operator	1	Tester Technician	1
Lathe Operator	1	Truck Driver	5
Library Work	1	Welder	1
Messenger	1	Wire Braider	1
Machine Operator	4	Wiring Transformers	1

Employers of 1961 Graduates

Ace Electronics Association	1	James F. Murphy, Woodworking Machinery	1
A. D. Jones Optical Works	2	Keyes Scientific	1
Arrow Armatures	1	Kendall Confectionery	1
Boston Metal Door Co.	1	Krohn-Hite	5
B & B Box Company	1	Kennedy Furniture	1
Bay State Tallow Co.	1	Lexington Auto Parts	1
B. U. Bookstore	1	Manufacturing Laboratories	1
Boston Herald Traveler	1	M & M Upholstery	1
Cambridge Thermionic Corp.	1	Minneapolis-Honeywell	1
Camp Dresser & McKee Corp.	1	Metro Food Service	1
Contract Interiors	1	McAllister Bicknell Co.	1
Cryovac Div., W. R. Grace Co.	1	Matts Texaco Service	1
Cushion Pack Corp.	1	M. Sharf & Co.	2
Capitol Engineering	1	New England Gas & Light	1
Colonial Engineering Co.	1	New England Fire Ins. Rating Association	1
Enterprise-Moakler, Inc.	1	Prudential Insurance	1
Elgin Label Corp.	1	Plasto Mfg. Co.	1
Eliot Medical Supplies	1	Pine & Baker, Furn. Finishers	1
Elliott Addressograph	1	Polaroid	1
Fair Exchange	1	Raytheon	2
First National Stores	1	Rotek Instrument Co.	2
Fresh Pond Market	1	Sanborn Co. (Precision Instruments)	1
General Builders	1	Sears Roebuck	2
Giger Art Supplies	1	Sage's	1
Globe, Inc.	1	State Street Trust Co.	1
Haselton Co.	1	Spaulding-Moss Co.	1
H. B. Scott Motors, Inc.	1	Star Market	1
Howes Wood Co.	1	Storm Shield of New England	1
Hugh Nawn Co.	1	The Cambridge Press	1
Hampshire Press	1	Tate, E. H. Co.	1
Harvard Trust Co.	1	United Electric Controls	7
Harvard University	3	United Motor Service	1
Inter-State Elec. Equip. Co.	1		

Obtained Jobs Through Placement Office

	Number	*Per Cent*
Yes	30	36.59%
No	52	63.41%
Requests for New Jobs		
Yes	9	10.98%
No	73	89.02%

Special Study of College Course		*Per Cent*
Graduated from College Curriculum	43	26.22%
Those attending colleges or other schools		
College	17	
Technical Schools	2	
Junior College	1	
Prep Schools	4	
Business School	1	
Post Graduates	2	
Armed Services	7	
Employed (full time)	8	
Employed (part time)	1	

BUREAU OF PUPIL SERVICES

1960-1961

I Testing Program

1. Group Tests

Reading Readiness (Grade 1)	1048	
Intelligence Tests (Grades 2, 5, 8)	2425	
(Grades 10, 11)	1267	
Miscellaneous pupils	316	
Achievement Tests (Grades 3, 4, 5, 6, 7, 8)	4552	
(Grades 9, 10)	920	
	Total	10,528

2. Individual Tests

Number of pupils studied individually		
Kindergarten through Grade 12		424
Intelligence Tests	340	
Achievement Tests	253	
Others	397	
	Total	990

II Psychiatric Clinic

Number of Individual Pupils Referred to Psychiatrist

	BOYS	GIRLS	TOTAL
New Cases	45	21	66
Continued Cases	21	5	26

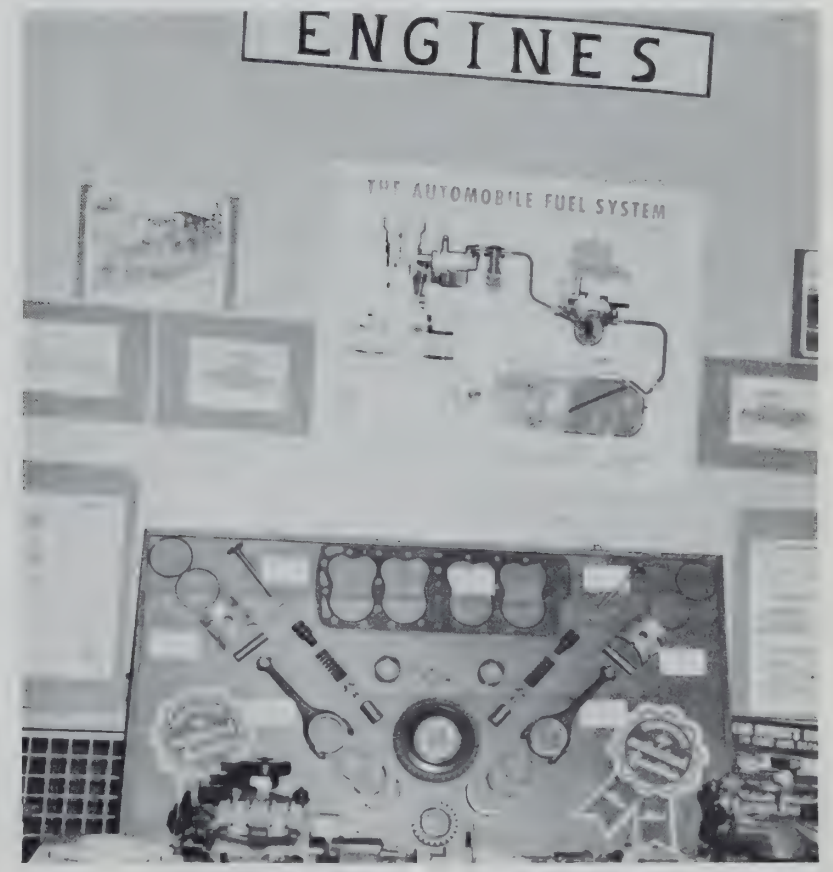
Range *Grades:* Kindergarten through 12
Age: five through eighteen years

Number of Interviews with Psychiatrist

Pupils			
Diagnostic	66	*Parent Interviews*	114
Treament	152	*Other than Parent*	4
Total	218	Total	118

Conferences with Psychiatrist 78

There are also numerous conferences between the staff of the Bureau and students, teachers, other school personnel, parents and agencies.



Dignitaries Address the School and Commerce Day Meeting

GRADES

		K	1	2	3	4	5	6	7	8	9	10	11	12	Special	Vocational School
New Cases	*Boys*	1	5	7	6	3	6	0	3	1	4	3	1	0	5	0
	Girls	1	0	1	3	0	1	0	2	1	8	2	0	0	2	0
Continued Cases	*Boys*	0	0	1	6	1	2	2	1	0	0	1	2	1	0	4
	Girls	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0

	K	1	2	3	4	5	6	7	8	9	10	11	12	Special	Vocational School
Boys	1	5	8	12	4	8	2	4	1	4	4	3	1	5	4
Girls	1	0	1	3	0	1	0	2	1	10	4	0	1	2	0
Total	2	5	9	15	4	9	2	6	2	14	8	3	2	7	4

CHRONOLOGICAL AGES

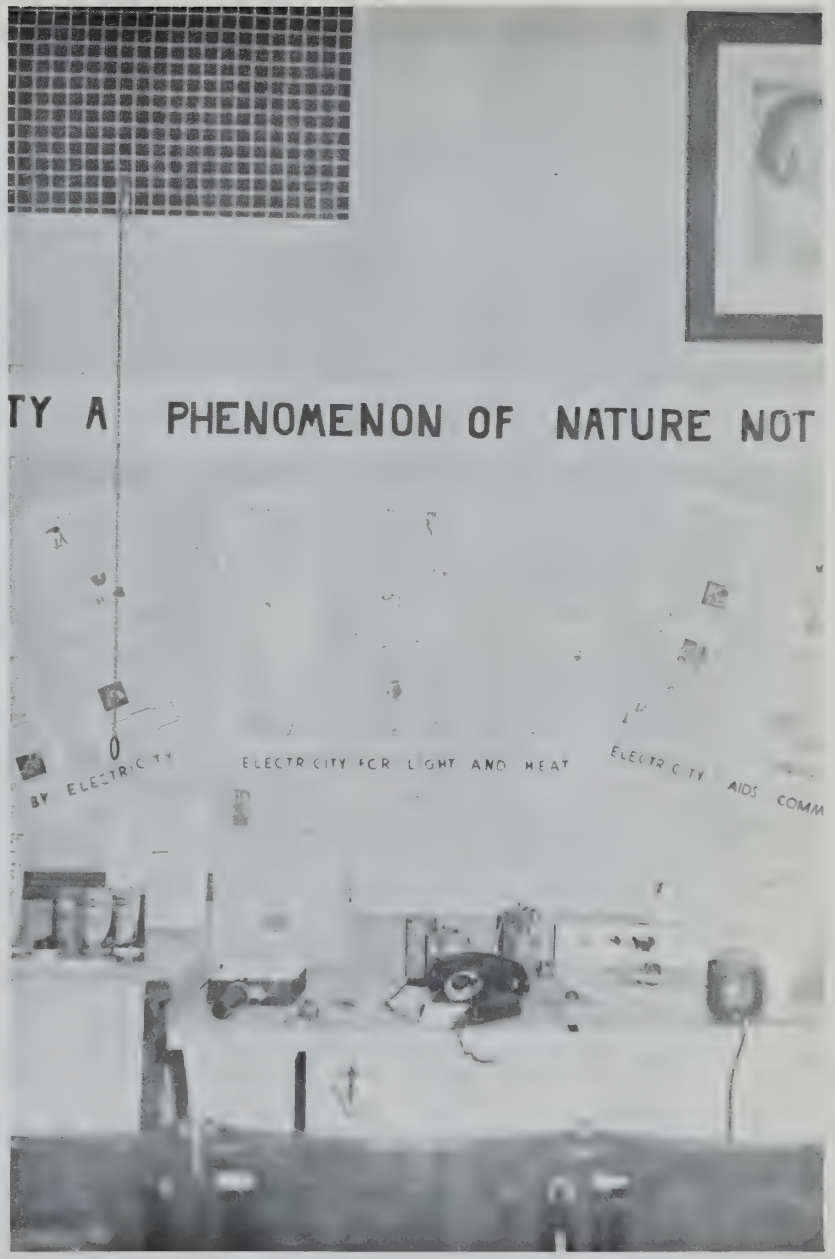
		5	6	7	8	9	10	11	12	13	14	15	16	17	18
New Cases	*Boys*	0	4	5	5	7	7	3	3	1	4	3	2	1	0
	Girls	1	0	1	1	1	2	0	1	3	4	4	3	0	0
Continued Cases	*Boys*	0	0	1	1	3	2	2	1	2	2	5	0	0	2
	Girls	0	0	0	0	0	0	0	0	0	0	3	1	0	1

	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Boys	0	4	6	6	10	9	5	4	3	6	8	2	1	2
Girls	1	0	1	1	1	2	0	1	3	4	7	4	0	1
Total	1	4	7	7	11	11	5	5	6	10	15	6	1	3

COST ANALYSIS

SCHOOL YEAR — September, 1960 to June, 1961

Schools	*Salaries A-1*	*All Other Costs*	*Total*
Cambridge High and Latin	$ 666,131.70	$ 120,426.33	$ 786,558.03
Rindge Technical	419,339.02	58,468.87	477,807.89
Abraham Lincoln	75,624.03	8,696.82	84,320.85
Agassiz	92,510.45	7,816.97	100,327.42
M. E. Fitzgerald	171,470.32	23,684.71	195,155.03
Fletcher	102,393.74	10,023.41	112,417.15
Haggerty	91,875.09	7,221.79	99,096.88
Harrington, Charles G.	272,416.96	23,418.90	295,835.86
Houghton	142,034.69	13,631.55	155,666.24
Longfellow	221,113.64	18,324.89	239,438.53
Morse	134,040.63	14,425.49	148,466.12
Peabody	92,591.70	5,846.79	98,438.49
Putnam	94,482.36	5,540.18	100,022.54
Roberts	177,068.78	14,977.63	192,046.41
Russell	146,296.44	19,207.84	165,504.28
Thorndike	90,956.96	10,656.16	101,613.12
Webster	143,771.20	12,748.64	156,519.84
Boys Vocational School	49,400.00	3,336.90	52,736.90
Girls Vocational School	11,484.97	4,896.22	16,381.19
Americanization	6,550.00	259.75	6,809.75
Art	41,393.59	667.76	42,061.35
Audio Visual Department	24,999.93	8,861.88	33,861.81
Bureau of Pupil Services	67,629.96	16,808.53	84,438.49
Children's Museum	13,999.96	788.79	14,788.75
Health and Safety	22,599.97	853.04	23,453.01
Home Economics	20,400.85	213.50	20,614.35
Music	29,097.01	3,759.04	32,856.05
Physical Education	118,355.11	2,631.51	120,986.62
Primary Director	9,000.00	860.54	9,860.54
School Physician	7,560.02		7,560.02
Substitutes	150,324.00		150,324.00
Superintendent's Office	47,040.66	7,277.05	54,317.71
Prevocational	29,200.03		29,200.03
Evening School	19,210.25	117.00	19,327.25
Custodians	337,196.90		337,196.90
Business Office	110,256.81	20,154.78	130,411.59
War Memorial	8,700.00	5,753.52	14,453.52
Total	$4,258,517.73	$ 452,356.78	$4,711,874.51



962 ANNUAL REPORT

PEABODY SCHOOL

HE CAMBRIDGE, MASSACHUSETTS PUBLIC SCHOOLS

1962 ANNUAL REPORT

of the

SCHOOL COMMITTEE

and the

SUPERINTENDENT OF SCHOOLS

CAMBRIDGE, MASSACHUSETTS · *"The University City"*

The School Committee

January 1, 1962 to December 31, 1963

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Mayor Edward A. Crane

Vice Chairman
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56 Concord Avenue

Mrs. Paul Kurt Ackermann
41 Gibson Street

James F. Fitzgerald, Esq.
137 Otis Street

Joseph E. Maynard
214½ Harvard Street

George F. Olesen, Jr.
2 Clinton Street

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William J. Fitzgerald . . . . . 79 Reservoir Street
Chief Custodian

The School Calendar

1962-1963

1st Term

September 6 - December 21, 1962

2nd Term

January 2 - February 15, 1963

3rd Term

February 25 - April 11, 1963

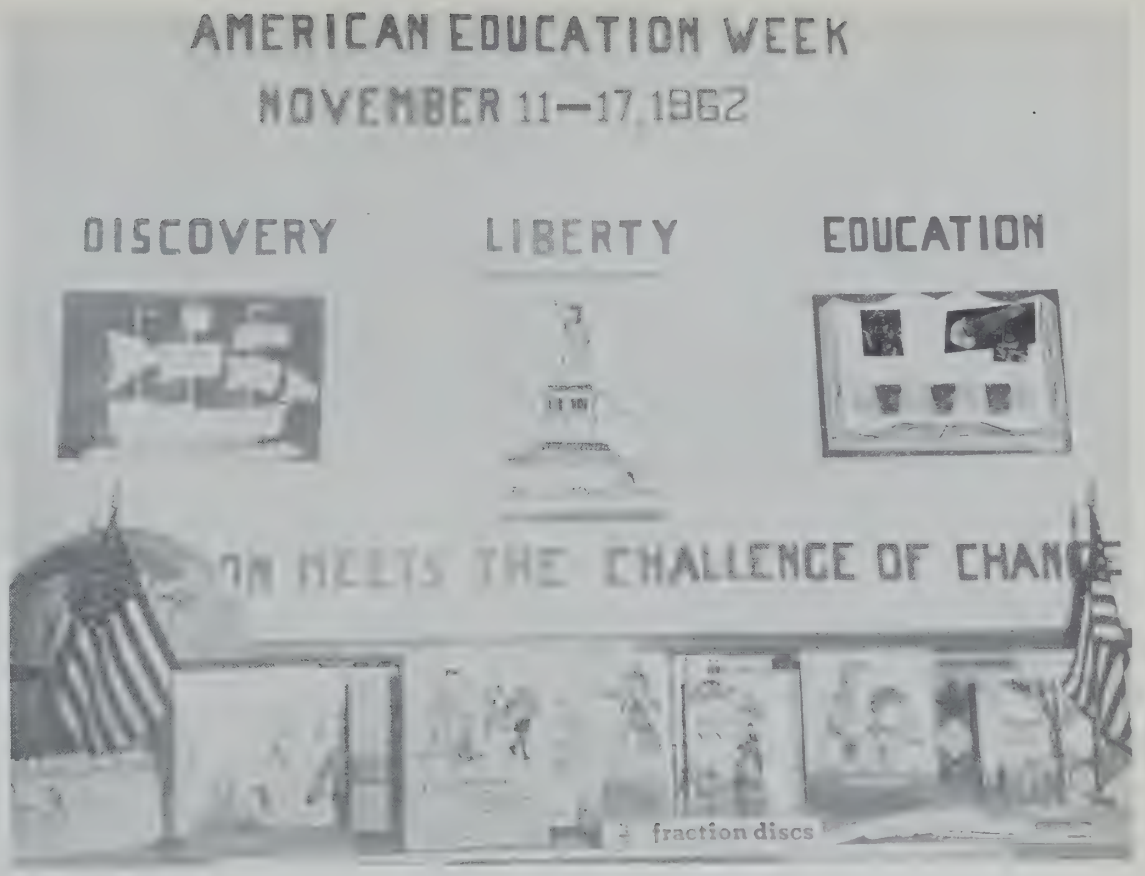
4th Term

April 22 - June 21, 1963

1963-1964

1st Term

September 5 - December 23, 1963



School Holidays

Columbus Day; Armistice Day; Thanksgiving Day and the day following; Washington's Birthday; Good Friday; Patriots' Day; Memorial Day; and the Seventeenth of June. If one of these holidays falls on Sunday, the schools are closed on the following day.

Offices at 1700 Cambridge Street

Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day, excepting Saturday.

Evening Schools

There are two terms of the evening schools. The first term begins on the second Tuesday of October and closes one week previous to the closing of the day schools for the Christmas holidays. The second term begins on the first Tuesday of January, except when that day falls on New Year's Day, in which case it begins on the Thursday following New Year's Day, and continues for at least twenty-five evenings. Vacations and holidays are the same as in the day schools.

To the Honorable the School Committee.

I submit herewith my eighteenth annual report which is the ninety-fifth in the series of annual reports of the Superintendent of Schools and the one-hundred-twenty-third in the printed reports of the School Committee of Cambridge.

My initial and continuing reaction to the theme of American Education Week 1962, was, and is one of resistance to the complacency implicit in the generalization. "Education Meets the Challenge of Change." It seems to me that the National Education Association would have served the cause of education more effectively had it foregone indoctrination and raised a question or two in the minds of our citizens. Does Education Meet the Challenge of Change? Does Education Meet the Challenge in Cambridge? Only when informed answers to these questions have been found at the local level do we have the right to declare that it is being met. Even then, it would be more modest and more truthful, even, to say that "Education in Cambridge Attempts to Meet the Challenge of Change."

Our endeavor to meet this challenge at the secondary school level sustained a severe loss on July 7, 1962 from the sudden death of Mr. Edward J. Danehy, Assistant Superintendent of Schools for Secondary Schools since December 29, 1947. Mr. Danehy had both a liberal arts background (A.B., Boston College, 1919), and a scientific background (B.S. in Chemistry, Massachusetts Institute of Technology, 1923). This exceptional training, together with his naturally friendly disposition, his experience as a classroom teacher and as Administrator — Master and Assistant Headmaster of the High and Latin School — provided excellent preparation for the important, necessary, and difficult task of guiding our secondary schools through the post-World War II era of turbulence and adjustment.

It was largely due to Mr. Danehy's encouragement of several of our teachers that Cambridge was closely associated with the work of Doctor Zacharias' Physical Science Study Committee almost from its start and, it was during his tenure as Assistant Superintendent that joint, semi-annual departmental meetings of our high school faculties were initiated. These provided an invaluable forum for the exchange of ideas on content, method and materials and, so, helped us to meet the Challenge of Change at the secondary level. Also helpful in meeting this challenge were the Departmental Workshops of a year ago which, under M Danehy's general supervision, examined curriculum offerings with a vi to their modernization and enrichment.

Mr. Danehy's friendly smile and cheery greeting are missed by as is his counsel through which we all shared in the wisdom gained fr long and successful experience as student, teacher and administrator

If education equips the individual to cope with, to master his envir ment, then the changes, in terms of jobs abolished, jobs created, wh automation and space technology, for example, have created in employment situation must cause us to reappraise the job preparat we are offering our young people. Will the 50,000 mile, five year w ranty now offered on new cars increase or decrease job opportunities automobile mechanics? Shall we, then, teach youngsters, whose s ondary education will be terminal, only vocational skills and clos related subject matter which may be susceptible to technological obso cence? Does education of this kind meet the Challenge of Change? more important, does it prepare youth to meet the Challenge of Chan to cope with, to master an environment which is never static?

Must we not, therefore, seek to graduate young people equipped w that knowledge and those skills which make adaptation to change in employment situation not possible only but possible with a minim loss of momentum? This, it would seem, can best be accomplished offering all who can profit from it (and this is the vast majority — th with average, or better, intelligence levels whose secondary educa will, in many cases, also be terminal) a broad, solid foundation in ma matics, in science and technology, in the mechanics of reading writing English, in the social sciences. Young people so prepared ready — with all the term readiness means in and for education — the specialized training programs which industry requires of its ployees, experienced and inexperienced alike. Youth so prepared an education which can meet the Challenge of Change. And the sc which sent them forth can claim with justice and satisfaction that education — the commodity — it offers meets the Challenge of Cha

The new Peabody School received its first classes in the sprin 1962. Anyone who contrasts it with the old Peabody (or the new old Morse, the M. E. Fitzgerald and the old Ellis, the Harrington the old Wellington-Kelley) must soon realize that here we have a fa which sets the stage for education geared to meet the Challeng

1962 ANNUAL REPORT

of the

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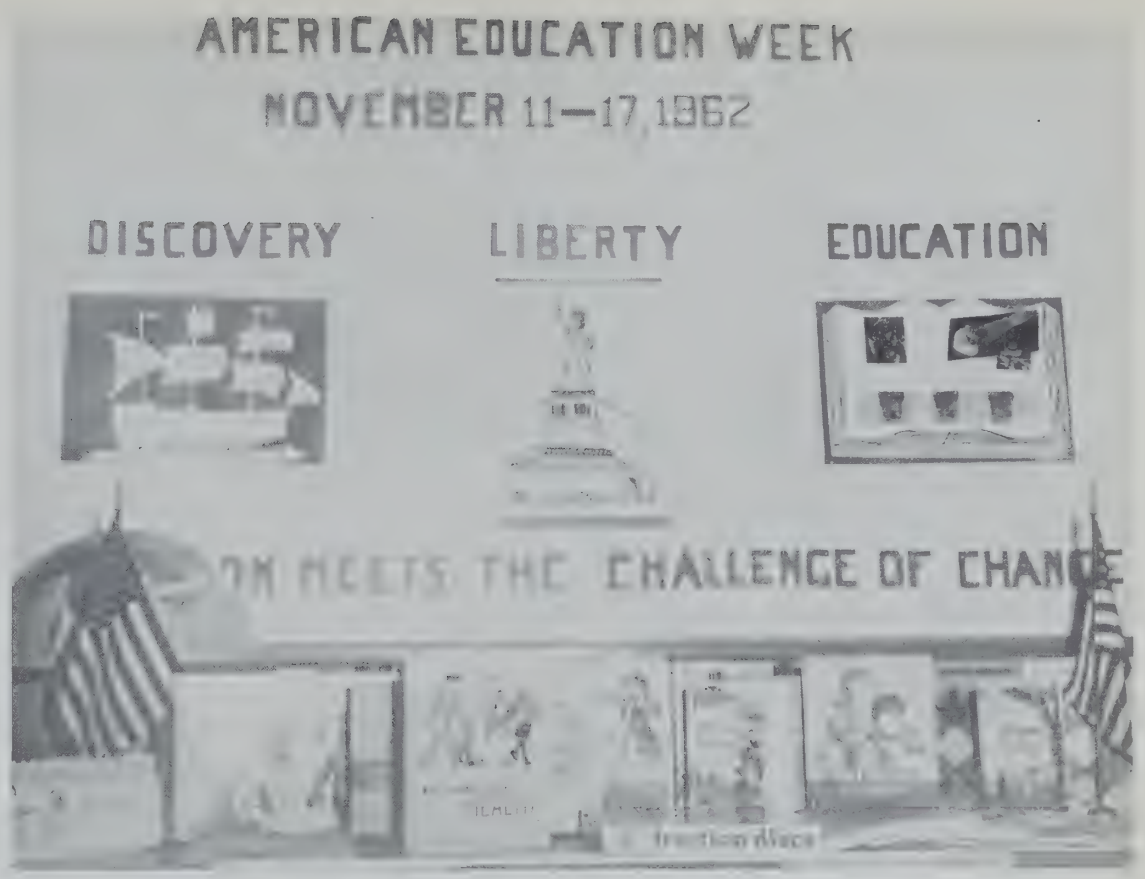

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Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day, excepting Saturday.

Evening Schools

There are two terms of the evening schools. The first term begins on the second Tuesday of October and closes one week previous to the closing of the day schools for the Christmas holidays. The second term begins on the first Tuesday of January, except when that day falls on New Year's Day, in which case it begins on the Thursday following New Year's Day, and continues for at least twenty-five evenings. Vacations and holidays are the same as in the day schools.

To the Honorable the School Committee.

I submit herewith my eighteenth annual report which is the ninety-fifth in the series of annual reports of the Superintendent of Schools and the one-hundred-twenty-third in the printed reports of the School Committee of Cambridge.

My initial and continuing reaction to the theme of American Education Week 1962, was, and is one of resistance to the complacency implicit in the generalization. "Education Meets the Challenge of Change." It seems to me that the National Education Association would have served the cause of education more effectively had it foregone indoctrination and raised a question or two in the minds of our citizens. Does Education Meet the Challenge of Change? Does Education Meet the Challenge in Cambridge? Only when informed answers to these questions have been found at the local level do we have the right to declare that it is being met. Even then, it would be more modest and more truthful, even, to say that "Education in Cambridge Attempts to Meet the Challenge of Change."

Our endeavor to meet this challenge at the secondary school level sustained a severe loss on July 7, 1962 from the sudden death of Mr. Edward J. Danehy, Assistant Superintendent of Schools for Secondary Schools since December 29, 1947. Mr. Danehy had both a liberal arts background (A.B., Boston College, 1919), and a scientific background (B.S. in Chemistry, Massachusetts Institute of Technology, 1923). This exceptional training, together with his naturally friendly disposition, his experience as a classroom teacher and as Administrator — Master and Assistant Headmaster of the High and Latin School — provided excellent preparation for the important, necessary, and difficult task of guiding our secondary schools through the post-World War II era of turbulence and adjustment.

It was largely due to Mr. Danehy's encouragement of several of our teachers that Cambridge was closely associated with the work of Doctor Zacharias' Physical Science Study Committee almost from its start and, it was during his tenure as Assistant Superintendent that joint, semi-annual departmental meetings of our high school faculties were initiated. These provided an invaluable forum for the exchange of ideas on content, method and materials and, so, helped us to meet the Challenge of Change at the secondary level. Also helpful in meeting this challenge were the Departmental Workshops of a year ago which, under M Danehy's general supervision, examined curriculum offerings with a vi to their modernization and enrichment.

Mr. Danehy's friendly smile and cheery greeting are missed by as is his counsel through which we all shared in the wisdom gained fr long and successful experience as student, teacher and administrato

If education equips the individual to cope with, to master his envir ment, then the changes, in terms of jobs abolished, jobs created, wh automation and space technology, for example, have created in employment situation must cause us to reappraise the job preparat we are offering our young people. Will the 50,000 mile, five year v ranty now offered on new cars increase or decrease job opportunities automobile mechanics? Shall we, then, teach youngsters, whose ondary education will be terminal, only vocational skills and clo related subject matter which may be susceptible to technological obs cence? Does education of this kind meet the Challenge of Change? more important, does it prepare youth to meet the Challenge of Char to cope with, to master an environment which is never static?

Must we not, therefore, seek to graduate young people equipped v that knowledge and those skills which make adaptation to change in employment situation not possible only but possible with a minim loss of momentum? This, it would seem, can best be accomplished offering all who can profit from it (and this is the vast majority — th with average, or better, intelligence levels whose secondary educa will, in many cases, also be terminal) a broad, solid foundation in ma matics, in science and technology, in the mechanics of reading writing English, in the social sciences. Young people so prepared ready — with all the term readiness means in and for education — the specialized training programs which industry requires of its ployees, experienced and inexperienced alike. Youth so prepared h an education which can meet the Challenge of Change. And the sc which sent them forth can claim with justice and satisfaction that education — the commodity — it offers meets the Challenge of Cha

The new Peabody School received its first classes in the sprin 1962. Anyone who contrasts it with the old Peabody (or the new old Morse, the M. E. Fitzgerald and the old Ellis, the Harrington the old Wellington-Kelley) must soon realize that here we have a fac which sets the stage for education geared to meet the Challeng

Change. These new buildings, as I said in a previous annual report, promise that something better lies ahead.

That promise has been partially realized in the work of our Elementary Curriculum Committees in science and arithmetic. The first draft of the curriculum guides prepared by these Committees are in the hands of our classroom teachers. Meetings have been held for teachers at each grade level at which experience in the use of the guide was compared and evaluated. Revisions are now in process.

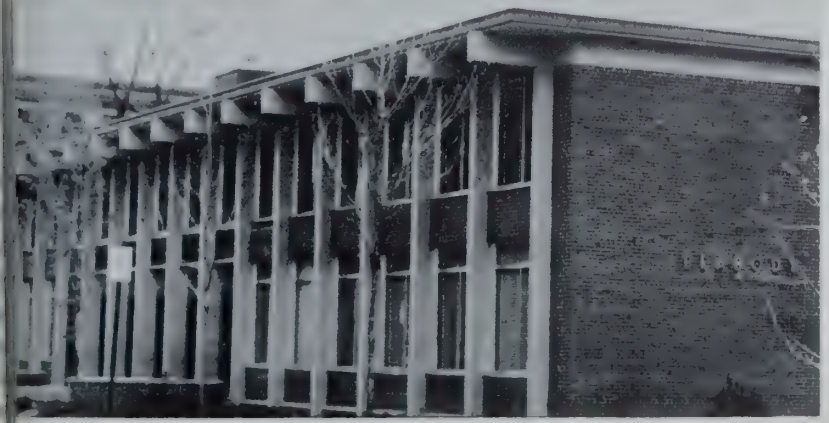
But education involves subjects other than science and mathematics. Therefore, to insure that this promise of better things is realized in every possible curriculum area, I formed an Elementary Curriculum Committee in the spring of 1962. This Committee reports directly to me. On recommendation of this Committee, I have appointed other Committees which are currently revising our Elementary Language Arts, Social Studies, Health and Safety Education Curriculum Guides. A Committee has been appointed to recommend or to develop a guide for teaching Work-Study Skills. Another is canvassing the availability of paper backs suitable for use in the elementary schools and is assessing the possibilities of their use in this field. A Committee on Programmed Instruction is at work; and, our "Tentative Suggested Time Allotment Chart" is being revised by the Elementary Curriculum Committee itself. This latter Committee has been exploring the ungraded primary department, team teaching and the Montessori method and has, or will soon, visit schools to observe these departures from the conventional in action. We are reviewing our policy and practice in Remedial Reading. And in the spring of 1962, two staff committees revised our Primary and Elementary Report Cards. These were issued for the first time in November, 1962 and were favorably received by both parents and teachers.

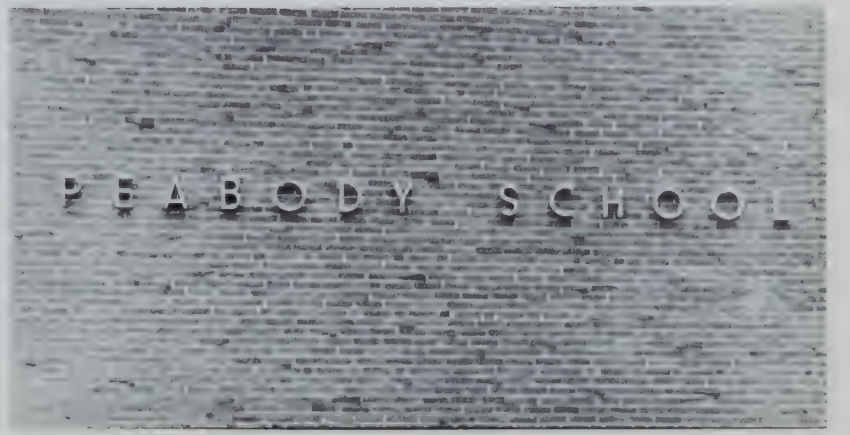
All of this activity is not just busy work. It demands time, study, energy — and much of all three outside of the regular school day. Its purpose?: that education in Cambridge may meet the Challenge of Change — change in content, change in method, change in materials. Change not for the sake of change but change which, in our considered judgment, will better prepare our boys and girls to cope with, to master their environment.

In conclusion, I wish to express publicly to the Headmasters, Masters, Directors, Teachers and all other employees my sincere appreciation for their co-operation, assistance and support. I wish, also, to express my deep gratitude to His Honor, the Mayor, and to the Members of the School Committee who have given their time so generously, and who have been so co-operative with their advice and counsel.

John W. Tobin

Superintendent of Schools





Salute

to

Tomorrow's Leaders

presented by

The Rotary Club of Cambridge

Testimonial Luncheon

in honor of

Members of the National Honor Society

Cambridge High and Latin

Jean Marie Avery
Noroldine Ray Brown
Ann Frances Cavanaugh
Louis Edward Cellineri
Frederick Alphonse Centanni
Hua-i Chiu
Ann Martha Conlon
Elizabeth Lacey Delaney
Henry Jonathan Frisch
Margaret Madonna Gibson
Catherine Anne Gidari
Orin Louis Grossman (Valedictorian)
Richard Andrew Horvitz
Eric Michael Isen
Susan Kingston
Paul Stephen Kutrubes
Sandra Jane Miano
Arlene Elisabeth Naef
Ann Marie Norton
Mark Allan Orenstein
Gail Rae Pick
Marie-Dolores Elvira Solano
Noel Willis Solomons
Geraldine Diane Spagnuolo
Beverley Anne Wentzell

Rindge Technical

William John Endres
James Elias Lappas
Allan Joseph Madeiros
William Joseph Mangan
Robert William Sossong
George Robert Strohminger
Adrian Zaccaria

PROGRAM

Song — "God Bless America"

Prayer — Rev. Gardiner M. Day

Lunch

Robert J. Gray, President of Cambridge Rotary

Presentation of Cambridge Members of National Honor Society

Edward A. Crane, Mayor, The City of Cambridge

Honored Guests

Mrs. Mary I. Bunting, President
Radcliffe College

Mr. Albert Coyne, Faculty Adviser
Rindge Technical High School

Honorable Edward A. Crane
Mayor of the City of Cambridge

Mr. John J. Curry
City Manager of the City of Cambridge

Mr. Henry O. Delaney, Assistant Headmaster
The High and Latin School

Mr. Frank J. Frisoli, Faculty Adviser
The High and Latin School

Dr. James G. Kelso
Executive Assistant to the President of M.I.T.

Miss Olive Lynch, Faculty Adviser
The High and Latin School

Mr. Edmond J. Murphy, Assistant Headmaster
The High and Latin School

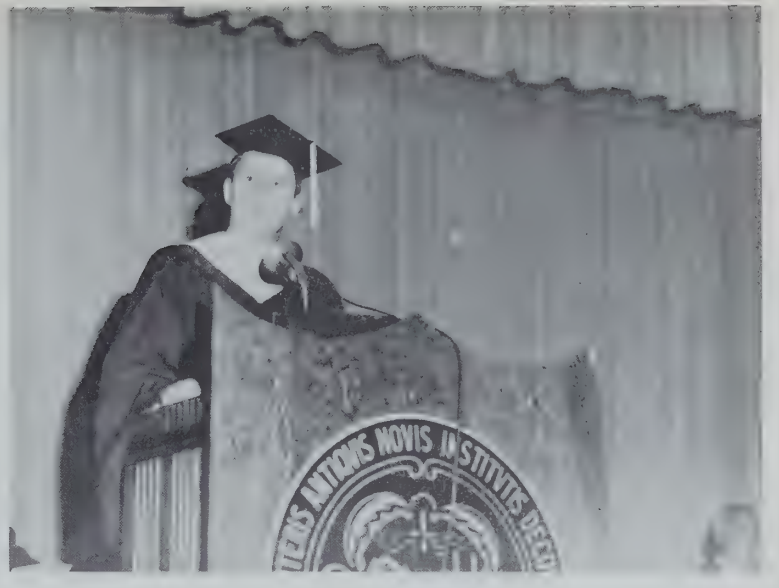
Dr. Don A. Orton, President
Lesley College

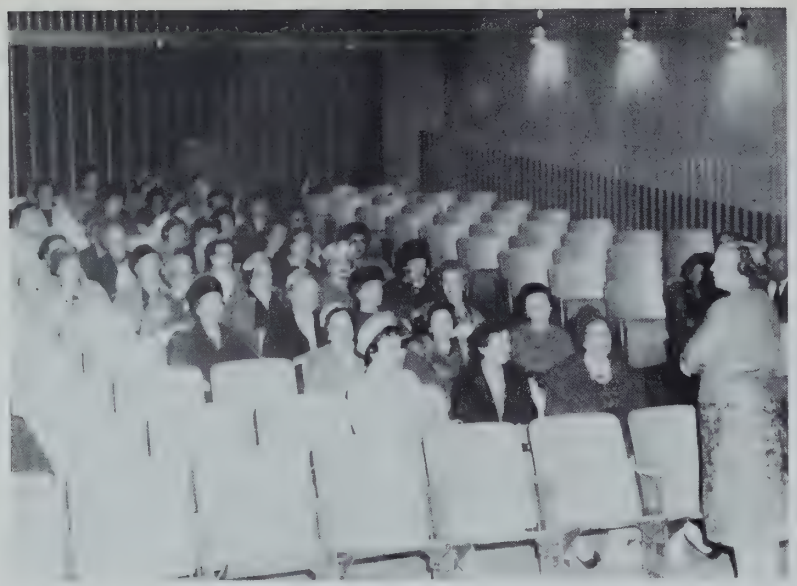
Dr. Judson T. Shaplin
Associate Dean of the School of Education
Harvard University

Mr. John J. Shechan, Headmaster
The High and Latin School

Mr. Robert R. Sweeney, Headmaste
Rindge Technical High School

Mr. John M. Tobin
Superintendent of Schools
for the City of Cambridge





Improving Reading Skills in the High Schools

In January, 1959, the Developmental Reading Laboratory at Cambridge High and Latin School was organized by Assistant Headmaster Frank Frisoli, then acting as Head of the English Department. Classes have since increased from two to seven a day under the supervision of Miss Florence Davey, Head of the English Department, and with the cooperation of Dr. Ruth Boland, Director of the Bureau of Pupil Services.

The Reading Laboratory Program is designed to help students who desire or need to improve their reading and study skills. It is a non-credit course, with no homework and no assigned grades. Pupils may enter at any time of the year and attend from one to five classes a week instead of going to their scheduled study periods.

Most upperclassmen come to the Laboratory voluntarily. Underachievers are sent by Masters, Deans, Heads of Departments, or teachers to see if reading or study problems are causing their unsatisfactory work. Rindge students also avail themselves of this laboratory upon recommendation of the Director of the Bureau of Pupil Services.

Freshmen, however, are our greatest concern, for we want them to do well in high school. "An ounce of prevention" at the beginning of their first year may mean the difference between success and failure. Therefore we carefully examine all Vocabulary and Reading Scores on the Standard Achievement Tests administered to eighth-graders in the Cambridge Public Schools; those whose marks do not measure up to their ability are assigned to the Reading Laboratory for at least one term. The Intelligence and Standardized Reading Tests taken by freshmen who did not attend our city's schools are similarly analyzed, and from this group, too, those scoring below their potential are selected for enrollment.

Everyone entering the Laboratory is given a Standardized Diagnostic Reading Test and various Placement, Spelling, Vocabulary, and Study Skills Tests. The information revealed by these examinations enables the instructor to determine the reading grade level and the needs of each pupil.

The results of these tests are discussed with each student after this conference, work is assigned on an individual basis to assist in the improvement of comprehension, development of vocabulary and word attack skills, adjustment of speed to the type of subject-matter and the purpose for reading, formation of efficient study habits, etc. In a typical Reading Laboratory class it is not surprising to find pupils from all four years in high school working with all kinds of materials on many different grade levels.

In the daily supervision of her classes, the reading teacher helps and encourages her students and tries to discover faults which may in part be causing low grades. Sometimes she notices that the handwriting of a boy or girl has become so slovenly that no one can decipher it. If the writer himself cannot read what he has written, how can he expect to communicate what he knows to his teachers?

Poor study habits and an inability to concentrate may also be causes of failure. Students can correct these faults by practicing the SQ3R Method of Study (Study, Question, Read, Recite, Review) and following suggestions for improving their powers of attention.

Another reason for unsatisfactory remarks is "original" spelling. In the Reading Laboratory students work with the Science Research Associates' (SRA) *Spelling Laboratory*. Learning Wheels on several levels of increasing difficulty explain rules and give practice exercises; Level Check Tests follow the study of each set of Wheels. Most of those

using this device last year said that their spelling had greatly improved, and some attributed their passing grades in English and biology to it.

The Controlled Reader, a machine which flashes on the wall filmed articles at a set rate of speed, and the three SRA *Better Reading Books* by Simpson, each of which contains twenty 1,350-word selections, are used to measure comprehension in relation to speed. (This efficiency index is obtained by multiplying the number of words read per minute by the score of an objective test based on the article.) Workbooks, College Board and how-to-study manuals, vocabulary and spelling aids, handwriting charts, pertinent newspaper articles, specialized reading texts, and books for enjoyment are also part of the Laboratory equipment.

At the end of each marking term, the reading teacher carefully examines all report cards. At this time freshmen who were enrolled as a preventive measure may, if they wish, return to regular study classes *provided* their grades are satisfactory, their reading has improved sufficiently, and their scores on a second Standardized Reading Test are above class level. Since their average gains on these Tests are a year and five months in Vocabulary and about eight months in Comprehension, it would seem that enrolling these freshmen in the Laboratory for one term is worthwhile.

Students in the Reading classes at the end of the year are also given an alternate form of the Standardized Reading Tests administered when they entered the Laboratory. The progress of these students is best estimated by comparing their gains on these Tests with their daily Reading class charts, their subject grades, and their attendance records. In conferring with students about their course achievements, the instructor may advise some to stay for an additional term. However, she insists that the pupils themselves make their own decisions about remaining. Of course, all who wish to continue their program of self-improvement another year may do so.

All who leave the Reading Laboratory are asked to complete a questionnaire about their work. Almost ninety per cent of those answering these questions last June reported that they liked the Laboratory; the remaining ten per cent disliked the work but noted one or more improvements as a result of it.

By far the largest number of students felt that their comprehension and general reading ability had greatly improved. Many said they acquired better study habits, increased their reading speed, improved their spelling, found greater enjoyment in reading, passed English or science, and received better marks in all their subjects. Smaller numbers listed these benefits from the Reading Laboratory work: increased listening power, more legible handwriting, a better memory, a greater enjoyment of all school subjects, a desire to read more books, the ability to write better book-reports or themes, and the usefulness of Laboratory material for other classes.

City of Cambridge

In City Council,

May 7, 1962.

WHEREAS:

The academic standards of the Cambridge Public School System have never received the recognition they so justly deserve, and

WHEREAS:

Each year students from both Cambridge High and Latin School and Rindge Technical School have obtained many scholarships to some of the finest colleges and universities in the world, and

WHEREAS:

The class of 1962 is proving to be one of the best of all time in scholastic accomplishments, and

WHEREAS:

The Cambridge City Council takes great pride in the worthwhile achievements of our young people in all fields of endeavor, therefore be it

RESOLVED:

That the Cambridge City Council in session assembled do recognize the true value of our Cambridge School System and its many outstanding graduates and students and point with particular pride to the record of Orin Louis Grossman of 96 Trowbridge Street, in the class of 1962 at Cambridge High and Latin School, who is President of the Honor Society, valedictorian of his class and in a recent national competitive examination, sponsored by some of the biggest business firms in the United States and taken by five hundred thousand students throughout the country, was awarded one of the one thousand scholarships given in this contest. This award gives Orin Grossman a full scholarship for four years at Harvard University where he will pursue a study of the humanities.

We the members of the City Council congratulate Orin L. Grossman in his winning of the scholarship and express the hope for continued success in whatever fields of endeavor he may pursue, and request that a copy of this resolve be sent to Orin L. Grossman and the Superintendent of Schools of the City of Cambridge.

In City Council May 7, 1962

Adopted by the affirmative vote of 9 members

Attest: — Thomas M. McNamara, City Clerk

A true copy: —

Attest: —

City Clerk

Introduced by Councillor Hayes.

ORIENTATION PROGRAM

for

BEGINNING TEACHERS

1962

SPONSORED BY THE

CAMBRIDGE SCHOOL DEPARTMENT

PLACE: RINDGE LIBRARY

TIME: 3:00 to 4:00

MONDAYS and WEDNESDAYS

GENERAL THEME

WHAT IS EXPECTED OF THE BEGINNING TEACHER

. . . PROGRAM . . .

SEPTEMBER 5

Greetings from the Superintendent — Dr. John M. Tobin
Superintendent of Schools

A Good Beginning — Mr. William F. Foley
Master of the Longfellow School

SEPTEMBER 10

School Records — Mr. William J. Cunningham
Master of the Russell School

SEPTEMBER 12

Report Cards — Mr. Francis J. Carney
Master of the Roberts School

SEPTEMBER 17

Character Training Through Discipline — Dr. Gunnar E. Haugh
Master of the Webster School

SEPTEMBER 19

The Teaching of Penmanship — Mrs. Mary R. Mulcahy
Master of the Haggerty School

SEPTEMBER 24

The Use of Supplies — Mr. John J. Balfe
Master of the Houghton School

SEPTEMBER 26

The Exceptional Child — Dr. Ruth F. Boland
Director of Pupil Services

OCTOBER 1

The Cambridge School System — Mr. Edward A. Conley
Master of the Charles G. Harrington School

OCTOBER 3

Teacher Benefits — Mr. John F. Toomey
Master of the Putnam School

OCTOBER 8

Making Use of Community Resources — Mr. Kenneth W. Goepper
Master of the Agassiz School

October 10

The Guidance of Extra Class Activities — Mr. Raymond G. D'Arcy
Master of the Peabody School

October 15

The Teacher Personality — Mr. John J. Sullivan
Master of the Thorndike School

October 17

The Teaching of Reading — Miss Winifred M. Linehan
Director of Primary Education

October 22

The Teaching of Arithmetic — Mr. Louis N. Fougere
Master of the M. E. Fitzgerald School

October 24

The Teaching of Science — Mr. David E. Hockman
Master of the Morse School

October 29

The Music Program — Dr. James W. Anderson
Director of Music

October 31

The Art Program — Mr. Joseph L. C. Santoro
Director of Art

November 5

The Health Program — Mr. Charles H. Cremens
Director of Health and Safety Education

November 7

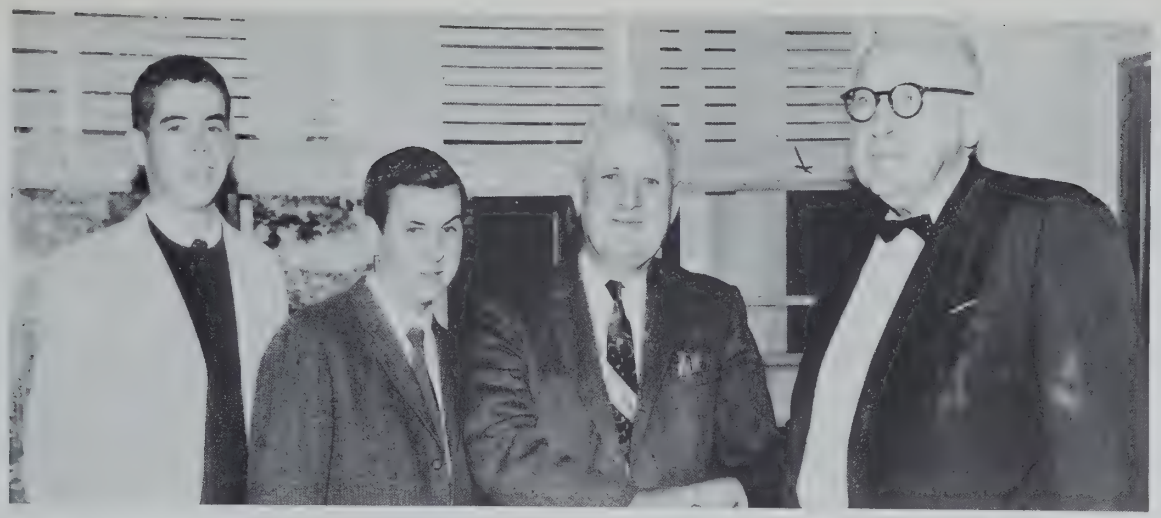
The Physical Education Program — Mr. Joseph A. Kozlowsky
Director of Physical Education

November 14

Audio Visual Aids — Mr. Edward F. Hurley
Director of Audio Visual Education

November 19

Meeting the Emotional Need of Children — Dr. Frank A. Straccia
School Psychiatrist



ICAGO-BOUND: Top ranking science students Anthony Glavin, left, of *Lakeview ave., and CHLS, and Kenneth T. Menzies of 62A Wendell st. Rindge Tech, have been chosen to attend the fourth annual National Youth Conference on the Atom at Chicago as guests of the Cambridge Electric Light Company. They will be accompanied by Science Instructor Joseph G. McKenna of 109 Lakeview ave. and CHLS, who is shaking hands with Supt. of Schools, John M. Tobin.*

ree High School Students From Cambridge Attend Youth Conference on Atom

Three top science students from Cambridge have been selected by h school authorities to participate in the fourth annual Youth Con- nce on the Atom at Chicago on November 8, 9, and 10 as guests of Cambridge Electric Light Company.

The students are Algis Martisauskas of Matignon High School, nneth Menzies of Rindge and Anthony Glavin of CHLS. They will ccompanied by Joseph McKenna, head of the science department HLS, and Theodore H. Williams, teacher of Biology and Science Browne and Nichols.

Algis Martisauskas, of Brighton, is a member of the Science and h Club at Matignon and has won several Science Fair prizes. One is scientific projects was the breeding of red and white fruit flies to over the effects of different colored lights on their reproduction and ival rates.

Kenneth Menzies, of 62A Wendell st., in Cambridge is a member he Science Explorer's at Boston Museum of Science in addition to being a member of his school Science Club and class counselor. He has grown crystals and used them to consider problems of symmetry, clearage and optical experiments. He hopes to be a research physicist or chemist.

Anthony Glavin, of 128 Lakeview ave., is treasurer of the Student Council at CHLS. He has recently been experimenting with mice by raising them at home and trying to cross different breeds. Glavin has belonged to the Science Explorers of the Boston Science Museum and hopes to attend Harvard at the completion of high school.

H. W. Atkinson, vice president of the Electric Light Co., was high in his praise of the Youth Conference and stated that "The Conference is sponsored by nearly 70 investor-owned electric companies across the nation in conjunction with national science organizations including the U. S. Atomic Energy Commission.

"The purpose of the Conference," he said, "is to present to a group of the nation's most able high school science students and teachers, an authoritative and inspiring picture of the promise of the peaceful atom, —and to help advance interest in the study of science in the U.S."

Junior Achievement Group To Open Here, October 22

Monday, October 22, will mark the beginning of the Junior Achievement Program for the junior and senior high school students of Cambridge, according to Burdette Johnson, treasurer of New England Gas & Electric Association and the J. A. chairman for Cambridge.

"We are pleased to announce that this great 'Learning by Doing' program for teen-agers which teaches them the workings and responsibilities of America's free competitive system is at last being offered to Cambridge teen-agers," says Mr. Johnson. "For some years the Cambridge business community has sponsored Junior Achievement activities in Boston. Last year Rindge and Cambridge High and Latin students formed four pilot miniature firms which met in the Boston Headquarters Building at 256 Huntington ave.

"This year, with the cooperation of Cambridge city officials, the third floor of the City Hall Annex at Broadway and Inman street was made available."

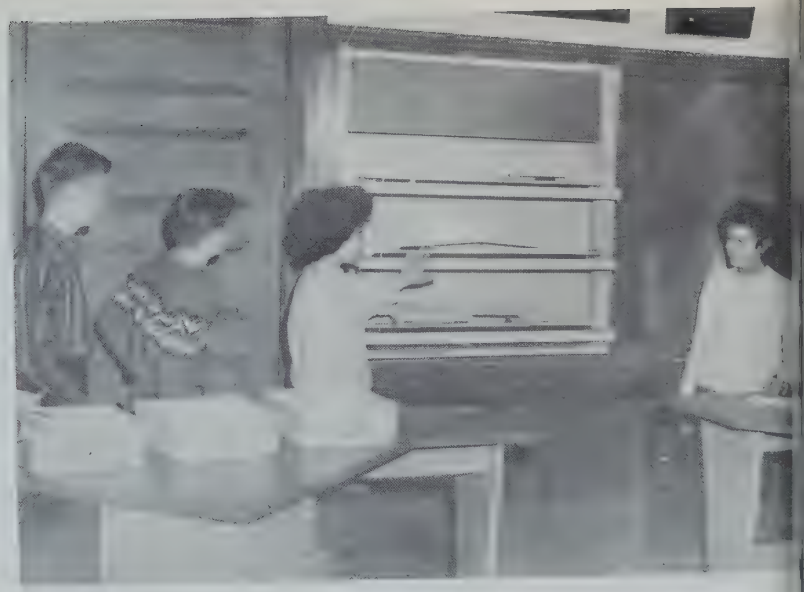
With the acquisition of a Junior Achievement Center, the counselling firms which will lend adult supervision as Advisers are: Carter's Ink Company, Cambridge Electric Light Company and NEGEA Service Corporation, Harvard Trust Company, Sears, Roebuck and Co. and F. W. Woolworth Company.

Opening October 22

Each of these firms will undertake the sponsoring of 20 high school juniors and seniors to help them apply for a charter, float a stock issue, buy raw materials and produce and sell a product and perform all other functions in operating a company similar to adult business. The J. A. Companies will meet at the City Hall Annex, Monday, Tuesday or Wednesday evening from 7-9 p.m. from October to May.

Mayor Edward A. Crane will cut the ribbon, opening the J. A. Center at 6:30 p.m. on October 22. He will be assisted by Maureen A. Smith, 16, Miss Junior Achievement of Eastern Massachusetts. Immediately after this ceremony, the companies will begin business by deciding on products, picking company names, electing officers and forming their Boards of Directors.

Mr. Johnson further states, "The Program is off to a flying start with 581 applicants when we have space for only 140 young people, so it looks like expansion is in the wind for 1963-64."



Dedication Exercises of the

NEW PEABODY SCHOOL

CAMBRIDGE, MASS.

SUNDAY, APRIL 29, 1962, 5-9 O'CLOCK

INSPECTION AND TOURS OF BUILDING 5-7:30

EXERCISES IN AUDITORIUM AT 7:30

ORDER OF EXERCISES

Presiding
His Honor, Mayor Edward A. Crane

Invocation
Most Reverend Thomas J. Riley, D.D.
Auxiliary Bishop of Boston, Pastor of St. Peter's Church, Cambridge

Reception of Flags
Gift of North Cambridge Post No. 7373,
Veterans of Foreign Wars,
Charles H. Sullivan, Commander

Posting of Colors
Color Guard of Peabody School

Presentation of Keys
John J. Curry, City Manager

Remarks
John M. Tobin,
Superintendent of Schools

Benediction
Reverend William H. Nicolas,
North Avenue Congregational Church, Cambridge

CONCERT

Cambridge Civic Symphony Orchestra

Victor E. Manusevitch, Director
(Courtesy of Dowse Fund)

Beethoven
Overture to Goethe's "Egmont" Opus 84

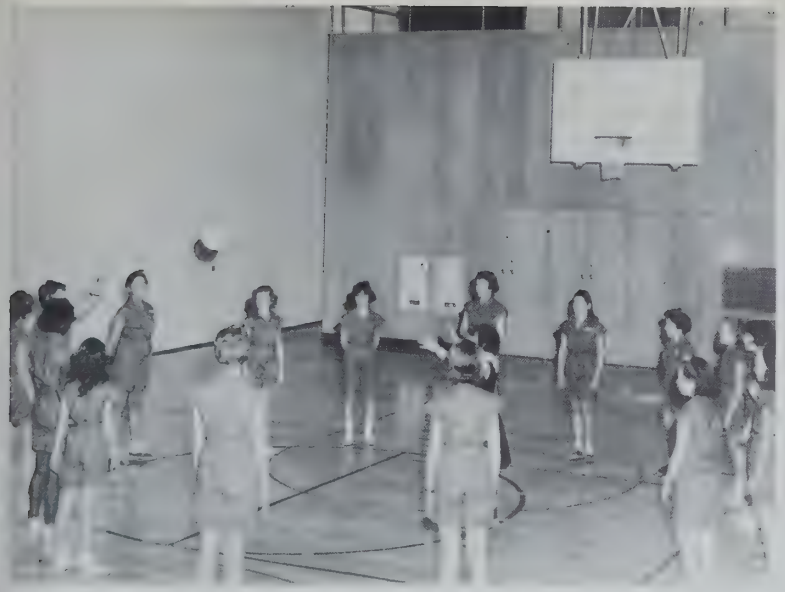
Haydn
Symphony No. 49 ("da Passione")

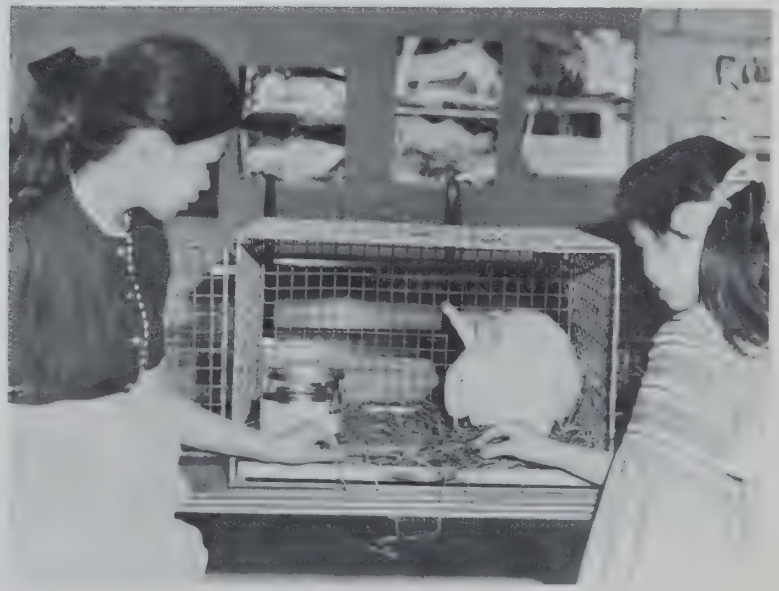
Granados
Intermezzo from Opera "Goyescas"

Sibelius
"Valse Triste"

Loewe
"My Fair Lady" (Selections)

Sousa
"Stars and Stripes Forever"





The new Peabody School is situated on the site of the old school at 44 Linnaean Street between Walker and Avon Streets. Demolition of the old building and five adjacent homes began in the Summer of 1960. The new building was ready for occupancy February 5th, 1962.

This beautiful and impressive edifice was designed by the architectural firm of Hugh Stubbins and Associates, Inc. of Cambridge and constructed by the Charles Logue Building Company, Inc. of Boston at a cost of $1,420,000. The site area is 96,000 square feet or 2.3 acres.

In addition to its superior educational facilities this building has been effectively designed to provide for a variety of other community activities, i.e. recreation, Parent-Teacher Association and other meetings, plays, etc. which may take place in areas completely isolated from the regular classrooms.

The main entrance located on Linnaean Street leads to a flagstone lobby flanked on the left by the Administrative office and at the right by the Health Suite. The rear of the foyer presents a spectacular view of a beautiful landscaped patio.

The administrative section contains a reception area, which includes a most modern communication system; a commodious storage room; a master's office; and a conference room.

The Health Suite contains a waiting room, a completely equipped dentist's office, a doctor's office, a nurse's room, and a laboratory.

The first floor on the Walker Street side includes two large kindergarten rooms with small toilets between them. Each room opens on to its own play area. On this side there are also three other regular classrooms for grades 3 and 4.

The first floor on the Avon Street side contains two large first grade rooms with small toilets between them. Each of these rooms also opens on to its own play area. On this side there are also three other regular classrooms for grades 2 and 4.

The second floor contains eight regular classrooms, a remedial reading room, an audio-visual room, and a room designed especially for the use of academically talented children. There is also a very beautiful and spacious library designed specifically for school use.

The entire front of the second floor contains two special purpose rooms — the science room with adjoining laboratory, and the Home Economics room. The latter is thoroughly equipped with the most

modern electric and gas stoves, washer, dryer, sewing machines and storage cabinets.

The auditorium has its own entrance on Walker Street. It has a seating capacity of 300. The commodious stage is provided with fire resistant curtains and drapes, a moving picture screen, and a dimmer board to control the modern lighting. It also has a public address system and the acoustic effects are excellent. Dressing rooms and music rooms are on the second floor above the stage.

The spacious gymnasium also has its own entrance from Avon Street. It has one large court with portable bleachers for 350 spectators. This area can be divided by an electrically controlled folding partition into two smaller sections, each with its own practice basketball courts. For physical education purposes one is used by the boys, the other by the girls.

The locker rooms are on the second floor. They are provided with basket lockers each with its own combination lock. The boys have a large locker room, drying room and gang shower. There are 40 individual dressing cubicles and curtained shower compartments for the girls. Each section has a glass enclosed instructor's office for convenient supervision.

The cafeteria and kitchen are located between the gymnasium and the auditorium. The cafeteria seats 250 and provides a very attractive setting looking out on the landscaped patio. The kitchen is adequately equipped with the most modern electric stoves, dishwashing machine, cooking utensils, refrigerators, and ample storage facilities.

The woodworking shop is situated in the rear of the building. In addition to hand tools it contains two lathes, a jig saw, a drill press, a grinder, a jointer, and a sander. There is also a kiln for ceramics. Lumber is stored on built-in racks conveniently located near the loading platform.

New Peabody School - Linnaean Street - Cambridge

Between Avon and Walker Streets

Area: 96,000 s.f. — 2.3 acres

Pupils: 630 K-8

l S.F.: 78,000 s.f.

lities:

17	Typical Classrooms	— 32′ x 30′
2	First Grade	— 48′ x 28′ With Adjacent Toilets.
2	Kindergartens	— 48′ x 28′ With Adjacent Toilets.
1	Homemaking	— 74′ x 30′
1	Science	— 50′ x 30′ With Project Area.
1	Industrial Arts	— 36′ x 38′
4	Music Practice Rooms	— 7′ x 8′
	Library	— 30′ x 40′ With Work Room.
	Auditorium	— 50′ x 53′ Seats 300
	Cafeteria	— 38′ x 64′ Seats 250
	Gymnasium	— 94′ x 64′ Seats 350
	Kitchen	— 36′ x 38′
	Locker Rooms	— With Individual Dressing Cubicles for the Girls.
	Health Suite	— With Doctors, Dentist, Laboratory and Waiting Space.
	Administration	— With Reception, Masters, Storage and Conference Space.
	Teachers' Rooms	— For both Men and Women.

ational Features: Movable chalk, tack and storage units, television in classrooms, natural lighting for gym, grouped play yards, sand play area, individual display cases, classrooms assigned especially for Gifted Children, Audio Visual, and Remedial Groups.

truction Cost: $1,420,000.

truction Features: Concrete structure; unpainted masonry glazed brick and ceramic tile walls; bluestone, vinyl asbestos, ceramic and quarry tile floors; fireproof acoustic tile; oak trim; aluminum windows and hot water heating (all for low maintenance).

itect: Hugh Stubbins & Associates, Inc.

ral Contractor: Charles Logue Building Co., Inc.

1,200 in State

SCHOOL BUS SAFETY CHECK IS THOROUGH

They can't ride on every bus, but inspectors of the Massachusetts Registry of Motor Vehicles do their best to make sure the bus that takes your youngster to school and home each day is as safe a vehicle as man can make and maintain.

To do that, the inspectors go over each bus the way a teenager goes over a sports car entered in a rally, and they do it every other month, or five times a year, while schools are in session.

All Checked

There are about 1,200 buses transporting school children in Massachusetts, and the Registry checks them all, except those coming under jurisdiction of the department of public utilities.

And the inspection covers such details as windows opening more than seven inches.

For the rules and regulations of the Registry require that windows which do open more than seven inches shall be provided with removable guards on the outside, and that no single guard should cover more than three windows.

Other Items

The rules and the inspections also cover such items as brakes, steering assembly, headlights, warning lights, tires, exhaust systems, fire extinguishers, first aid kits, heaters, defrosters, aisle and seat spacing, emergency doors.

And this year, the Registry requires that operators of school buses obtain a school bus operator's license.

To qualify for that, the applicant must be physically fit, morally proper, 21 years old or more, and have had a driver's license for at least three years.

Motorists Reminded

The inspectors have done their part, and again they may rem the motorist, who may also be a parent, that:

"All vehicle drivers when approaching a school bus should be ticularly cautious and are now required by law to stop before reacl the bus and not proceed until either the bus resumes motion or driver signals to proceed or the blinker lights stop flashing. The al does not apply when the school bus is on the opposite side of a divi highway."

DOWN AND UNDER *goes Registry Inspector George Kennedy (right) to ch front end of this school bus while Inspector Charles Gotgart marks inspec chart.*

GHT BY THE RULER — *Size of window is first inspection of vehicle that ll carry youngsters to and from school. From left, Inspector Francis Moore, Driver Samuel Lamkin and Inspector Charles Gotgart.*

FORE AND AFT *inspection includes the drive shaft and muffler. Inspector Francis Moore, in coveralls, and Inspector George McGovern make sure the ones on this bus are all right.*

This fall's School-Commerce Day — the ninth one — was held Thursday October 25. On that date approximately 550 senior students from Cambridge High and Latin School and Rindge Technical School and some 44 teachers met in assembly in the Cleveland Auditorium of Cambridge High and Latin School. Members of the Cambridge School Committee, the Mayor, City Councilors, and the presidents of the three service clubs — Exchange, Kiwanis and Rotary — were invited guests. The meeting was presided over by Donald B. Wilson, President of the Cambridge Chamber of Commerce. Mayor Edward A. Crane, Superintendent of Schools John M. Tobin, the president of the Senior Class of Rindge Technical School and the president of the National Honor Society from Cambridge High and Latin, spoke.

At the conclusion of the assembly the students and teachers boarded waiting buses, which took them to the establishments they had chosen to visit. In some cases more than one group visited the same place because of the category chosen.

The students and teachers arrived at their destinations about 9:45 A.M. Wherever possible the guests were fed at the company lunchrooms. Several companies acted as hosts to their groups at nearby restaurants — others provided box lunches, and joined with the students for lunch.

Of interest is the change in the thinking of the students as to the types of industries selected. A comparison with 1960 shows the following:

1960		1962
21	Advertising	17
17	Architecture and Drafting	20
17	Auto Agency (Service)	10
5	Auto Agency (Sales)	9
29	Banking	38
21	Candy Manufacturing	0
37	Chemistry (Chemical Laboratory)	24
39	Electronics	51
15	Engineering — Chemical	0
6	Engineering — Civil	7
15	Engineering — Electrical	19
13	Engineering — Mechanical	15
0	Fire Fighter	7
18	Hospital Work	
28	Hotel Operation	
36	Insurance and Real Estate	
14	Machine Work	
24	Newspaper	
	Office Work:	
0	Bookkeeping	
38	General Office	
20	Office Machines	
75	Office — Secretarial	
50	Police Work	
14	Printing and Publishing	
9	Public Utilities	
27	Research Operations	
22	Telephone Technician	
9	Transportation and Warehousing	
0	Woodworking	

Those cooperating in hosting the students were: American Bil Rubber Company, Boston Woven Hose & Rubber Division; B Chemical Company; Baird-Atomic, Inc.; The Blanchard Machine Cabot Corporation; Cambridge Association of Insurance Agents; C bridge Chronicle-Sun; Cambridge City Hospital; Cambridge Ele Light Company; Cambridge Fire Department; Cambridge Police partment; Cambridge Trust Company; Cambridgeport Savings B Carr Fastener Company, Div. United-Carr Fastener Corp.; Co Bank and Trust Company; The Cuneo Press of New England, The Eddy-Rucker-Nickels Company; Elliott Industries, Inc.; Har Trust Company; Harvard University; Hotel Commander, Inc.; I Continental; Houghton Mifflin Co. — The Riverside Press; Int tional Business Machines Corp.; Arthur D. Little, Inc.; Massachu Institute of Technology; New England Telephone & Telegraph C pany; Polaroid Corporation; Porter Chevrolet, Inc.; Schultz Woodw ing Co.; Simplex Wire & Cable Co.; U B S Chemical Company, of A. E. Staley Manufacturing Co.; A. O. Wilson Structural F. W. Woolworth Company.

The Cambridge Chamber of Commerce and the three service clubs – Exchange, Kiwanis and Rotary — each will contribute a government bond as a prize for the four winning essays on School-Commerce Day. All senior students from the two high schools will participate in the Essay Contest, and the four winning essays will be run in a future issue of this Magazine.

School-Commerce Day is an excellent example of cooperation by the Cambridge Schools, the Mayor's office, the Chamber of Commerce, the three service clubs, industry and business, and certain city departments.

PROGRAM

LESLIE L. CLEVELAND AUDITORIUM
CAMBRIDGE HIGH and LATIN SCHOOL

CHAIRMAN

DONALD B. WILSON, *President of the Cambridge Chamber of Commerce*

SPEAKERS

JOHN M. TOBIN, *Superintendent of Schools*

ESTHER R. PURPEL, *President of the National Honor Society, Cambridge High and Latin School*

NORMAN C. SABBEY, *President of the Senior Class, Rindge Technical School*

GUESTS

JOHN J. CURRY, *City Manager of Cambridge*

EDWARD M. McMAHON, *President of the Exchange Club of Cambridge*

LOUIS M. PILL, *President of the Kiwanis Club of Cambridge*

JOHN H. DYER, *President of the Rotary Club of Cambridge*

ROBERT R. SWEENEY, *Headmaster, Rindge Technical School*

JOHN J. SHEEHAN, *Headmaster, Cambridge High and Latin School*

DR. RUTH E. BOLAND, *Director of the Bureau of Pupil Services*

ESSAY WINNERS

On October 26, the day following their visits to 34 businesses, industries, educational institutions, and several city departments, the 500 senior students at Cambridge High and Latin School and Rindge Technical School wrote essays on the subject "What School-Commerce Day Means to Me."

All essays were submitted by number, pre-judged at the two high schools, then the best 13 were sent to a committee composed of Chamber President Donald B. Wilson; Edward McMahon, President, Exchange Club of Cambridge; Louis M. Pill, President, Kiwanis Club of Cambridge; and John H. Dyer, President, Rotary Club of Cambridge, for final judging. It was a difficult task indeed to select four winners.

Four government bonds, donated by the three service clubs and the Chamber, will be presented to the four winners. All four winners will be head table guests at meetings of the service clubs. At these luncheons the students will read their essays or participate in a panel discussion on "What School-Commerce Day Means to Me."

The winning essays follow in this special School-Commerce Day issue of "The Magazine of Cambridge." In addition there are several pictures showing the group on the steps of the Cleveland Auditorium before boarding buses, and some of groups visiting various establishments of their choice.

Again this year the Chamber received letters from the various companies visited commenting on the fine behavior and keen interest shown by the students visiting their businesses.

WHAT SCHOOL-COMMERCE DAY MEANS TO ME

JOHN MORRIS of 112 Lexington Avenue is 17 years old, in the college course at Cambridge High and Latin School, and entered High and Latin in 1961 from the Sudbury-Lincoln Regional High School. He is a member of the Band, Orchestra and track team. Has worked on a farm and as a Senior Life Guard. He has applied to Harvey Mudd College, Union and U. of Maine, and is planning to be a civil engineer.

On October 25, 1962 I visited the A. O. Wilson Company. This visit had three meanings for me. The first meaning was that this trip was a new experience for me. As a new expereince I found my trip exciting. The banging of a jack hammer, the clanging of a piece of steel as it fell to the floor, and the bright flash of orange light of the cutling torch brought a new word through sight and sound to my senses.

As a second meaning this trip gave me a better understanding of the complexities of a building. It showed me how industries combine, each doing one specific part, to create the whole. I could understand not just that a building was built, but how the eventual tall skyscraper was put together.

The third meaning that this day had for me was that this showed me the necessity of a Career Day. For seventeen or eighteen years we as children and then teenagers have led a split life of school and vacation. Now we are about to become adults and to make our way in an adult world. Career Day gives each of us a glimpse of this adult world which we must, very soon, reach out and grasp.

HAT SCHOOL-COMMERCE DAY MEANS TO ME

)RMAN C. SABBEY, 368 Broadway, is 17 years old, in the col-e course at Rindge Technical School, and attended St. Mary's mmar School. He is President of the Key Club; member of the nch Club; the Math Club; editor of the Rindge Register; on the r Book Staff; the Senior Council; National Honor Society; Track n; President of the Senior Class. He is applying to M.I.T. and rvard.

A view into the future is what Student-Commerce Day means to Because I am at the crossroads of my future, any guidance that uld help me select the most appropriate path is worth a lifetime of loring every possible route.

The City of Cambridge gives me this opportunity on Student-mmerce Day. Selecting the profession I plan to strive towards, I able to see just what the duties are of someone in this profession. mparing his environment, working conditions, and position in the mmunity with what I believe to be true for this profession, I am e to evaluate whether or not this road will bring me safely and ckly to my destination, a satisfying future.

While visiting industry, if I find that I have overrated this pro-ion, that my interests are not oriented towards the duties of someone this industry, then Student-Commerce Day has saved me from sibly embarking on a route which I would regret the rest of my life.

But on the other hand, if this profession contains the glamour and itement that I am looking for, then I can continue to increase my owledge of this profession with the certainty that I have chosen a fession which will be most satisfying to me.

In either case Student-Commerce Day has rendered me a service ich I could never possibly repay. A service which may decide the come of my life.

WHAT SCHOOL-COMMERCE DAY MEANS TO ME

HILDA SOUZA, 324 Columbia Street, is in the commercial course at Cambridge High and Latin School, and attended the Wellington Grammar School. She is a member of the Girls' Athletic Association; of K.B.; National Honor Society; is active in the C.Y.O., and plans to be a bookkeeper.

On October 25, the seniors of the two Cambridge high schools participated in School and Commerce Day which was both profitable and educational. In the very near future, most of the seniors will be going out into the world of business seeking job opportunities which will eventually provide them with lifetime occupations. This, of course, is a very frightening proposition because at this particular time, they will be on their own and faced with many important decisions. In my opinion, Student and Commerce Day tries to relieve some of this tension by taking the students from their classrooms and putting them in the business world for a day. This day gives the seniors an opportunity to go behind the scenes of American business and see what methods are employed to make such businesses successful and profitable.

On my guided tour through the Harvard Trust Company, I was shown the fundamentals connected with the handling of money, checks, and securities. I had never realized how complex the banking business actually was, but through this wonderful experience, I learned that it was not only complex but a fascinating business in which to work. We learned which skills were needed, and how closely related our school programs were to the jobs in this field. This day was very profitable for me because it gave me an opportunity to appraise myself, and to make the very important decision that banking is the field in which I would like to work. Now, I know what is expected of me, and must work hard to attain the needed skills.

This educational trip was not only enjoyable, but also a trip which would help students know what is expected of them and how to achieve their goals through study and experience.

WHAT SCHOOL-COMMERCE DAY MEANS TO ME

KEVIN P. LOUGHMAN of 57 Ellery Street is 17 years old, in the college course at Cambridge High and Latin School, and attended Fletcher Grammar School and Southern Junior High School, Somerville. He is President of the Dramatic Club; a member of the Key Club; Senior Ring Committee; Year Book Staff; C.Y.O.; and active in the Back Bay Community Theater. He did volunteer work last summer at St. Coletta's School for exceptional children at Hanover, Mass. Has applied to Harvard, Northeastern and the U. of Mass., and plans to teach High School.

"These are the times that try men's souls!" So wrote Thomas Paine concerning the American Revolution. How applicable this statement is to the world situation today! The ominous threat of war looms over our heads in Cuba and in Berlin. In such times as these, a reaffirmation of our faith in American principles and in our way of life is in order. To me, Career Day is one of the best ways in which to express our faith in American principles and ideals.

Faith in the American system is very much in evidence on Career Day. By means of Career Day, the business and professional people of Cambridge are able to acquaint the young people with some of the dynamic forces that have made America the great nation that it is today. Students are brought face to face with the operation of our industrial establishments, thus gaining valuable insight into the understanding of our complex economic system. Moreover, when students visit our professional and educational institutions, they become aware of their place in society and the part they will play in the building of our nation's future.

Most important of all, students who are shown our industrial, professional, and educational establishments are given valuable insight into the true meaning of our freedom, that freedom which we may be called upon to defend with our lives. Career Day shows us the tangible effects of one-hundred eighty-five years of economic progress. It shows us how, by our own industry and hard work, we can strengthen and preserve the American concept of freedom, our deeply cherished belief in the essential importance of the individual and our belief in the supremacy of a society which recognizes the dignity of every man, regardless of race or creed.

I am grateful for Career Day. I am thankful to those men and women, who, because of their Faith in America, worked so hard to bring Career Day about. I am grateful also to those people for reminding me of the true value of freedom, American freedom, which summons the energies of all men and women, regardless of race or creed, to the task of building the kind of city, nation, and world in which they wish to live!

Statistical Tables

NATIONAL HONOR SOCIETY

Class of 1962

	Acceptances	*Scholarships*
Jean Marie Avery	Is working at K.L.H. Research and Development Corp.	
Noroldine Ray Brown	Boston University (Will attend)	
	Radcliffe College (Waiting List)	
Ann Frances Cavanaugh	Boston College (Accepted)	
	Mt. Auburn Hospital Sch. of Nursing (Will attend)	$300
	Woman's So. Middlesex Nursing Assoc.	$100
	C.H.L.S. P.T.A. Scholarship	$100
	Rotary Club Essay Contest	$25
Louis Edward Cellineri	Bowdoin	$1650
	Brown	$1250
	Harvard (Will attend)	$1400
	Tufts	$2000
Frederick Alphonse Centanni	M.I.T. (Will attend) Renewable An.	$1700
	Northeastern Univ.	
	Harvard	700
	Hopkins Scholarship	100
	Thorndike School P.T.A. Scholarship	$50
Hua-i Chiu	Boston Univ.	
	Northwestern Univ.	
	Jackson College	
	Mt. Holyoke College (Will attend)	$1000
	Hopkins Scholarship	$100
	Maria Baldwin Scholarship	$40
Ann Martha Conlon	Radcliffe College (Will attend)	
	Wellesley College	
	Russell School P.T.A. Scholarship	$100
Elizabeth Lacey Delaney	Barnard College	
	Radcliffe College (Will attend)	
	Wellesley College	$750 and $220 Loan
	Hopkins Scholarship	$200
	Peabody School P.T.A. Scholarship	$200
Henry Jonathan Frisch	Harvard (Will attend)	$1520
	M.I.T. (Half tuition to any college)	
	Princeton	
Margaret Madonna Gibson	Emmanuel College	
	Radcliffe College (Will attend)	
	K. B. (Girls' Honor Society) Schol.	$10
Catherine Anne Gidari	Working at N. E. Tel. and Tel. Co.	
Orin Louis Grossman (Valedictorian)	Harvard University $1500 renewed annual	
	(National Merit Scholar)	
	$100 Supplementary Scholarsh	
	Agassiz School P.T.A. Scholarship	$10
	Hopkins Scholarship	$40
Richard Andrew Horvitz	Harvard University (Will attend)	
	M. I. T.	
	Kingman Fund	$5
	Jonathan Barghoorn Award	2
Eric Michael Isen	Harvard University (Will attend)	
	Univ. of Chicago	
	Hopkins Scholarship	$2
	Longfellow School P.T.A. Schol.	$5
Susan Kingston	Dickerson College	
	Vassar College (Will attend)	
Paul Stephen Kutrubes	Univ. of Mass. (Will attend)	
	Cambridge Teachers' Club	1
Sandra Jane Miano	Working at East Cambridge Court House	
Arlene Elizabeth Naef	Radcliffe College (Will attend)	
	$1400 and $200 Lo	
	Ohio State University	
	Carleton College	
	Univ. of California	
Ann Marie Norton	Boston State College	
	Emmanuel College	$16
	Am. Fed. of Labor Examination	$1
Mark Allan Orenstein	Tufts University (Will attend)	
	M. I. T.	
Gail Rae Pick	Undecided	
Marie-Dolores Elvira Solano	Emmanuel College (Will attend)	$
	Mt. Holyoke College	
	Jennie Spring Scholarship	$1
	Hopkins Award Latin IV	$
	Hopkins Award (Highest Aver. 4 years)	$
Noel Willis Solomons	Cornell University	$1
	Univ. of Chicago	
	M. I. T.	$
	Harvard University (Will attend)	
	Honorary (Non-stipe	

	Acceptances	*Scholarships*
Geraldine Diane Spagnuolo	Boston College	$4000
	Emmanuel College (Will attend)	$3200
	Hopkins Scholarship	$400
	M. E. Fitzgerald P.T.A. Schol.	$100 (??$50)
Beverley Anne Wentzell	Chandler Secretarial School	

AID FOR THE HANDICAPPED — *Jimmy DeFrancesco, age 5, of Kindergarten Class at Harrington School, Cambridge, wearing a Goodwill Driver's cap, demonstrates how to help the Goodwill Drive to aid the handicapped with Arthur W. Botelho, Industrial Art teacher of the school.*

CAMBRIDGE JUNIOR GOOD SAMARITANS . . . *carrying filled Goodwill Bags to School in their aid to the handicapped at Boston's Goodwill Industries Cambridge Public Schools Collection — April 27, 1962.*

Charles H. Cremens, Director of Health and Safety Education; Michael Whelan, National Safety Council; Sgt. John McCarthy, Safety Officer; Mayor Edward Crane. National achievement award for Traffic Safety Education in Cambridge Public Schools evaluated by a decline in traffic accidents involving school children.

DISTRIBUTION BY CHRONOLOGICAL AGE

Range — Five years to seventeen years

C.A.	5	6	7	8	9	10	11	12	13	14	15	16	17
Boys	1	6	4	9	11	11	6	5	5	3	15	5	1
Girls	1	3	2	3	0	1	0	0	1	1	2	1	0
Total	2	9	6	12	11	12	6	5	6	4	17	6	1

DISTRIBUTION BY GRADE

Range — Kindergarten to Grade 12

	K	1	2	3	4	5	6	7	8	9	10	11	12	Special	Vocational School
Boys	6	7	6	10	12	6	1	5	5	9	2	1	2	4	6
Girls	4	1	2	2	1	0	0	1	0	1	2	0	0	1	0
Total	10	8	8	12	13	6	1	6	5	10	4	1	2	5	6

1962 Class Statistics

ENROLLMENT CHART BY GRADES

Grade	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
I	1,198	1,079	1,017	1,014	998	1,046	1,066	1,086	1,102	1,064
II	976	969	891	871	867	886	887	904	894	943
III	827	921	917	877	821	817	848	851	877	850
IV	779	751	878	896	838	797	822	808	812	809
V	801	747	701	852	858	838	763	822	799	784
VI	782	759	710	660	831	836	817	759	809	769
VII	677	749	707	693	662	791	804	798	746	757
VIII	584	626	679	667	655	635	736	740	720	694
IX	796	790	790	933	796	772	693	887	981	1,000
X	741	698	640	722	805	775	742	661	852	888
XI	595	666	567	477	639	749	724	724	573	727
XII	568	550	559	505	466	549	618	606	541	521
P.G.	21	14	8	29	23	21	15	17	12	20
Ungraded						148	168	126	196	195

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.	Total
High and Latin	747	650	521	366	10	2,294
Rindge	253	238	206	155	10	862
Boys' Vocational	Ungraded					100
Girls' Vocational	Ungraded					43

October 1, 1962

NUMBER OF PUPILS in the GRAMMAR SCHOOLS

December, 1962

Grade	*Boys*	*Girls*	*Total*
Eighth	348	338	686
Seventh	396	357	753
Sixth	407	364	771
Fifth	391	394	785
Fourth	425	380	805
Total	1967	1833	3800
Ungraded	132	66	198
Total	2099	1899	3998

NUMBER OF PUPILS in the PRIMARY SCHOOLS

December, 1962

Grade	*Boys*	*Girls*	*Total*
Third	422	420	842
Second	501	429	930
First	565	491	1056
Total	1488	1340	2828

NUMBER OF PUPILS in the KINDERGARTEN

December, 1962

Boys	642
Girls	658
Total	1300

BUREAU OF PUPIL SERVICES
School Year 1961-62

BUREAU OF PUPIL SERVICES
School Year 1961-62

I Testing Program

1. Group Tests

Reading Readiness (Grade 1)	1112	
Intelligence Tests (Grades 2, 4, 5, 6, 7, 8)	5022	
(Grades 10, 11)	1475	
Miscellaneous pupils	290	
Achievement Tests (Grades 3, 4, 5, 6, 7, 8)	4919	
(Grades 9, 10)	947	
	Total	13,765

2. Individual Tests

Intelligence Tests	342	
Achievement Tests	323	
Others	412	
	Total	1,077

I Psychiatric Clinic

Number of Individual Pupils Referred to Psychiatrist

	BOYS	GIRLS	TOTAL
New Cases	61	12	73
Continued Cases	21	3	24

Range *Grades:* Kindergarten through 12
Ages: Five through seventeen years

Total Number of Pupils Seen by Psychiatrist

Boys: 82 Girls: 15 Total: 97

Number of Sessions with Psychiatrist

Pupils	154
Parents	133
Total Interviews	287

Conferences with Psychiatrist 80

There are also numerous telephone discussions, and conferences between the staff of the Bureau of Pupil Services and students, teachers, other school personnel, parents and agencies.

Ages

DISTRIBUTION OF PUPILS BY AGE AND GRADE ON OCTOBER 1, 1962

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Over 21	Totals
Kdgn.	M	263	383	3																	649
	F	277	374	5	1																657
I	M		178	325	65	5	3														576
	F		181	264	36	7															488
II	M			96	305	82	16	4													503
	F			122	257	54	4	3													440
III	M				82	221	95	27	5	1	1										432
	F				112	230	52	19	4	1											418
IV	M					85	207	96	28	4											420
	F					113	184	69	17	5	—	1									389
V	M						80	190	70	36	7	2									385
	F						119	213	39	20	7	1									399
VI	M							107	198	72	36	5	1								419
	F							109	169	61	11										350
VII	M							1	89	184	83	26	11								394
	F								108	162	61	24	8								363
VIII	M									69	191	69	25	2							356
	F									93	178	48	16	3							338
IX	M									1	141	235	113	26	6	1					523
	F										121	210	115	23	8						477
X	M											119	240	75	19	3	1	1			458
	F										1	134	218	60	15	2					430
XI	M												126	167	70	29	2				394
	F											1	122	151	43	14	2				333
XII	M												2	54	137	71	17	4			285
	F												1	99	99	27	10				236
P.G.	M														2	6	2	2	3	2	17
	F														1	1	1				3
Voc. Schs.	M											28	39	26	6	1					100
	F											16	16	9	2						43
Ungraded	M			3	5	13	13	15	11	20	19	17	17								133
	F		2	—	6	3	4	6	14	6	9	4	6	2							62
Totals	M	263	561	427	457	406	414	440	401	387	478	501	574	350	240	111	22	7	3	2	6,044
	F	277	557	391	412	407	363	419	351	348	388	439	502	347	168	44	13				5,426
																				Grand Total	11,470

AGE GROUPS

5 years or over and under 7
Boys 988 Girls 948 Total 1,936

7 years or over and under 16
Boys 4,058 Girls 3,629 Total 7,687

CAMBRIDGE HIGH AND LATIN SCHOOL GRADUATE FOLLOW-UP STUDY

Class of 1962

			Per Cent
Number of Graduates		337	
Questionnaires Sent		337	
Number of Responses		333	98.81
Further Education (full time)		132	39.17
Colleges and Universities		91	
Technical Institutes		1	
Junior Colleges		2	
Prep Schools		7	
Business Schools		16	
Nursing Schools		8	
Hairdressing		2	
Post Graduates		5	
	Total	132	
Employed (full time)		168	49.85
Employed (part time)		5	1.48
Armed Services		14	4.15
Married (at home)		2	.60
Convalescing		1	.30
Unemployed		11	3.26
Moved (no further address)		4	1.19
	Total	337	100.00%

CAMBRIDGE HIGH AND LATIN SCHOOL DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities

Brandeis	1	Emmanuel	3
Boston College	5	Fitchburg State Teachers	1
Boston University	10	Gordon College of Beverly	1
Boston State Teachers	7	Gettysburg College	1
Cardinal O'Connell Seminary	1	Harvard College	8
Cornell University	2	Holy Cross Theological School	1
Chicago University	1	Jackson College	1
Colgate University	1	Lowell State Teachers	1
Emerson College	1	Mass. Institute of Technology	1
Mass. College of Art	1		
Merrimac College	1		
Museum of Fine Arts	2		
Mt. Holyoke College	1		
New York University	1		
Northeastern University	10		
Pasadena Nazarene College	1		
Radcliffe College	4		
Suffolk University	2		
Salem State Teachers	3		
Tennessee State University	1		
Tufts College	5		
University of Connecticut	1		
University of Vermont	1		
University of Mass.	5		
University of Nigeria	1		
Valparaiso University	1		
Vassar	1		
West Va. State College	1		
Wheelock College	1		

Junior Colleges

Chamberlayne Jr. College	1
Norwalk Community Jr. College	1

Prep Schools

Buckingham Prep	1
Cambridge Academy	1
New Prep	2
Newman Preparatory	3

Nursing Schools

Boston City Hospital	1
Cambridge City Hospital	1
Children's Hospital	1
Mass. General	1
Mt. Auburn Hospital	1
Lawrence Memorial Hospital	1

Practical Nursing

Shephard Gill School	1

Business Schools

Chandler School for Women	8
Burdett	1
IBM School	1
Bay State Academy	3
Bryant & Stratton	1
Newbury School of Business	1
Stenotype Institute of Boston	1

Technical Institutes

Industrial Tech	1

Post Graduates

C.H.L.S.	5

Miscellaneous

Mansfield Beauty Academy	2
Boston School of Dental Nursing	1

Types of Employment

Accounting	2	Electronics	3
Assembly	1	Expediter	1
Assistant Librarian	1		
		Factory Work	7
Biller	4	Filing	2
Bookkeeper	14		
Bookkeeping Machine	3	General Office	18
Bank Teller	1		
		I B M Operator	9
Clerical	25	Inspection (Factory)	1
Cashier	5		
Chef's Helper	1	Legal Secretary	2
Dictaphone Operator	1	Library Work	1

Mail Clerk	2
Machine Shop	1
Maintenance	1
Nurse's Aide	3
Photostat Service	1
Payroll Clerk	4
Porter	1
Receptionist	1
Retail Office Work	1
Sales Representative	1
Switchboard	1
Sales Department	5
Stock Department	2
Secretary	21
Telephone Operator	1
Transcriber	1
Typist	20
Trucker's Helper	1
Waitress	1

Employers of 1962 Graduates

Adams & Abbott Photo	1
Austin & Hastings Co.	1
American Electroplating	1
Amarillo, Tex., Hospital	1
American Insurance	1
Baird Atomic	2
Boston Mutual Insurance	1
Banda of Mass. Inc.	1
Big Burger Ranch	1
Beneficial Finance	1
Benj Kraft & Co.	1
Bank of Nova Scotia	1
Belmont Springs Water	1
CAMBION	1
Cambridge Trust Co.	2
Cambridge Gas & Light	2
Coca-Cola Bottling Co.	1
College Town Sportswear	1
Cambridge Rubber Co.	1
Carter's Ink	1
Chas. Gilman & Sons	2
Cosma Ins. Agency	1
Crystalonics Inc.	1
C. L. Berger Co.	1
College, Seal & Crest	1
Cambridge City Hospital	1
Dewey & Almy	1
Deran Confectionery	1
Dynisco Div. Am. Shoe	1
H. J. Dowd Co.	1
Employer's Group Ins.	1
Employer's Mutual of Wassau	1
Eastern Industries	1
F. W. Woolworth	1
James Leo Foster, Esq. (lwyr)	1
First National Bank of Boston	1
Fireman's Fund Ins.	1
George Coleman Bookbinding Co.	1
Gregstrom Corp.	1
Goddess-Revelation Bra	2
Gordon Linen Supply	2
Great Books of the Western World	1
Holy Ghost Hospital	1
Harris Stamp Co.	1
Howes-Wood Co.	1
Industrial Stainless Steel	3
I. J. Silverman, Esq.	1
James O. Welch Co.	5
Jordan Marsh Co.	2
John Hood & Co.	1
John Hancock Mutual Life Ins.	12
Kennedy's	1
K L H Research & Development	1
Harvard Cooperative Society	1
Harvard Trust Co.	14
Harvard College	10
Hartford Steam Boiler Ins. Co.	1
Hathaway Glenn Electronics	1
Lechmere Sales	1
Liberty Mutual Ins.	9
Little Brown & Co.	1
Lumberman's Mutual Casualty	1
Loyal Protective Life Ins.	1
Minneapolis-Honeywell	1
Mass. Institute of Technology	1
Myerson Tooth	1
Mass. Indemnity Life Ins.	1
Middlesex County	4
Middlesex County Nat'l Bank	2
Macalaster Scientific Corp.	1
McCarthy Rest Home	1
New England Tel. & Tel.	7
N. E. Mutual Life Ins.	1
NEGEA Service Corp.	1
National Grange Mutual Ins.	1
Northern Terminals Inc.	1
New England Baptist Hospital	1
Polaroid	3
Prudential Insurance	1
Radcliffe	1
Radio Shack	2
Raymond's	1
Riverside Press	1
Retail Stores Delivery	1
Sage & Co.	1
Sperry & Hutchinson Co.	2
Sears Roebuck Co.	1
Somerville National Bank	1
Stone & Webster	2
Sky Publishing Co.	1
Shea Cleansers	1
Stadium Hardware	1
Signet Club Plan	1
Star Market	2
State Street Bank	1
Toledo Edison Co.	1
Transistor Automation	1
Tracerlab	1
Traveler's Insurance	1
United Carr Fastener	1
US Sonics	1
York Mfg. Co.	1

ANALYSIS OF GRADUATES — Class of 1962

Special Study by Course

			Per Cent
Graduates from College Course		130	38.5%
College	91		
Other Schools			
Junior Colleges	2		
Prep Schools	7		
Business Schools	1		
Nursing Schools	8		
Post Graduates (CHLS)	3		
Employed (full time)	9		
Employed (part time)	1		
Armed Services	6		
Unemployed (studying part time)	1		
Moved	1		

Graduates from Commercial Course		190	56.38%
Technical Schools	1		
Business Schools	15		
Hairdressing Schools	2		
Post Graduates (CHLS)	2		
Employed (full time)	150		
Employed (part time)	1		
Armed Services	6		
Married (at home)	2		
Convalescing	1		
Unemployed	7		
Moved	3		
Graduates from General Course		6	1.78%
Employed (full time)	4		
Armed Services	2		
Graduates from Home Economics Course		11	3.26%
Employed (full time)	5		
Unemployed	3		
Employed (part time)	3		
Totals		337	100.00%

RINDGE GRADUATE FOLLOW-UP STUDY
Class of 1962

		Per Cent
Number of Graduates	133	
Questionnaires Sent	133	
Number of Responses	129	96.99%
Further Education (full time)	47	35.34%
Colleges and Universities	19	
Technical Institutes	12	
Junior Colleges	3	
Prep Schools	6	
Business Schools	1	
Post Graduates (R.T.S.)	6	
Total	47	
Employed (full time)	51	38.34%
Employed (part time)	3	2.26%
Armed Services	21	15.79%
Unemployed	7	5.26%
Moved (no further address)	4	3.01%
Total	133	100.00%

RINDGE
DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities		19
Bentley College of Accounting and Finance	2	
Boston College	1	
Boston University	2	
Delaware State College	1	
Harvard College	1	
La Salette Seminary	1	
Northeastern University	6	
Providence College	1	
Ricker College, Houlton, Me.	1	
University of Mass.	3	
Junior Colleges		3
Chamberlayne Jr. College	3	
Prep Schools		6
Chauncy Hall	1	
Huntington School for Boys	2	
Newman Prep	2	
New Preparatory School	1	
Technical Institutes		12
Coyne Electrical Institute	2	
East Coast Aero Tech	1	
Industrial Tech	4	
Wentworth Institute	5	
Business Schools		1
Burdett College	1	
Post Graduates		6
Rindge Technical	6	

EMPLOYMENT DISTRIBUTION OF GRADUATES
RINDGE

Assembler	5	Cook	1
Apprentice Electrician	1	Clerk	1
Apprentice Plumber	1	Custodian	1
Bank Messenger	1	Draftsman	2
Bindery Work	1		
		Inspector (Quality Control)	1
Candy Maker	1	I B M Operator	1

Install Rugs	1
General Work	3
Laborer	1
Laboratory Assistant	1
Machinist	1
Machine Operator	4
Meter Installer	1
Maintenance	1
Mechanic	1
Mechanical Work	1
Mail Clerk	1
Meter Reading	1
Office Work	1
Plumber	1
Polaris Submarine Cables	1
Printing	4
Repair Work	2
Salesman	2
Stock Clerk	3
Transit Dept.	1
Type Setter	1
Waiter	1

Employers of 1962 Graduates

Automatic Radio Mfg. Co.	1
Brazao Plumbing and Heating	1
Cambridge Mfg. Co.	1
Cambridge Gas and Electric	3
Carter's Ink	1
Carpenter and Paterson Inc.	1
Cambridge Trust Co.	1
Cuneo Press	2
Conrad and Chandler's	1
Digital Equipment Co., Maynard	1
Dunbar-Wolfe Printing Co.	1
Endres, Wm. J.	1
Fanny Farmer's	3
Fennell W. E. Co.	1
Flow Corp.	2
Globe Ticket Co.	1
Harvard Trust Co.	1
Harvard College	3
Holmes Electric	1
Jordan Marsh Co.	1
Kresge Dining Hall	1
Lloyd A. Fry Roofing Co.	1
Lynch Pharmacy	1
Macalaster Scientific	1
Middlesex County	1
Minneapolis Honeywell	1
Paramont Carpet Laying Co.	1
Polaroid	4
Park St. Machine Shop	1
Rotek Instrument Co.	2
U. S. Sonics	1
Sears Roebuck Co.	1
Simplex Wire and Cable	1
Sherriss Press	1
Steele Canvas Basket Co.	1
Tracey's Service Station	1
United Electric Controls	2
Universal Industries	1

		Per Cent
Special Study College Course		
Graduated from College Curriculum	43	32.33%
Those attending colleges or other schools		
College	17	
Technical Schools	4	
Business Schools	1	
Junior Colleges	2	
Post Graduates	6	
Prep Schools	6	
Armed Services	1	
Employed (part time)	1	
Employed (full time)	5	

COST ANALYSIS

SCHOOL YEAR — September, 1961 to June, 1962

Schools	*Salaries*	*All Other Costs*	*Total*
Cambridge High and Latin	$ 664,440.27	$ 123,570.84	$ 788,011.11
Rindge Technical	435,269.11	61,701.64	496,970.75
Abraham Lincoln	68,309.31	8,784.18	77,093.49
Agassiz	74,303.86	7,861.18	82,165.04
M. E. Fitzgerald	187,026.62	24,254.69	211,281.31
Fletcher	102,807.25	11,343.07	114,150.32
Haggerty	86,720.59	7,475.79	94,196.38
Harrington	290,733.66	24,313.11	315,046.77
Houghton	137,714.30	15,902.98	153,617.28
Longfellow	211,783.76	19,604.31	231,388.07
Morse	138,994.63	15,368.82	154,363.45
Peabody	103,288.05	11,677.34	114,965.39
Putnam	96,627.46	5,619.77	102,247.23
Roberts	167,435.52	24,368.67	191,804.19
Russell	141,033.02	19,406.60	160,439.62
Thorndike	86,689.98	11,337.43	98,027.41
Webster	130,622.16	13,076.15	143,698.31
Boys Vocational	46,183.90	3,385.06	49,568.96
Girls Vocational	14,777.02	5,830.22	20,607.24
Americanization	12,111.94	263.40	12,375.34
Art	42,161.41	1,217.44	43,378.85
Audio Visual Dept.	25,000.00	10,817.81	35,817.81
Bureau of Pupils Services	68,573.24	17,037.60	85,610.84
Children's Museum	14,200.00	795.80	14,995.80
Health & Safety	22,800.00	669.30	23,469.30
Home Economics	34,199.91	250.50	34,450.41
Music	37,973.03	3,800.28	41,773.31
Physical Education	124,716.53	2,769.41	127,485.94
Primary Director	5,520.00	244.60	5,764.60
School Physician	7,560.00		7,560.00
Substitutes	151,912.00		151,912.00
Superintendent's Office	48,878.40	10,578.56	59,456.96
Prevocational	39,799.87		39,799.87
Evening School	34,895.00	175.00	35,070.00
Custodians	340,021.64		340,021.64
Business Office	103,391.04	23,332.29	126,723.33
War Memorial	8,700.00	5,972,82	14,672.82
Total	$4,307,174.48	$ 492,806.66	$4,799,981.14

963 NNUAL EPORT

RINDGE TECHNICAL SCHOOL

HE CAMBRIDGE, MASSACHUSETTS PUBLIC SCHOOLS

1963 ANNUAL REPORT

of the

SCHOOL COMMITTEE

and the

SUPERINTENDENT OF SCHOOLS

CAMBRIDGE, MASSACHUSETTS *"The University City"*

The School Committee

January 1, 1963 to December 31, 1963

Chairman
Mayor Edward A. Crane

Vice Chairman
Anthony Galluccio, Esq.
56 Concord Avenue

Mrs. Paul Kurt Ackermann
41 Gibson Street

James J. Fitzgerald, Esq.
137 Otis Street

Joseph E. Maynard
214½ Harvard Street

George F. Olesen, Jr.
8 Fainwood Circle

Gustave M. Solomons
85 Inman Street

Regular Meetings of the School Committee are held on the first and third Tuesdays of each month, except July and August, at the School Committee Office, 1700 Cambridge Street.

Officers of the Cambridge School Committee

John M. Tobin . . . . . 76 Fresh Pond Lane
Superintendent of Schools

John R. McCarthy . . . . . 198 Rindge Avenue
Secretary to the Superintendent of Schools

Edward J. O'Connell . . . . . 49 Fayette Street
Secretary to the School Committee and Business Agent

William J. Fitzgerald . . . . . 79 Reservoir Street
Chief Custodian

The School Calendar

1963-1964

1st Term

September 5 - December 20, 1963

2nd Term

January 2 - February 14, 1964

3rd Term

February 24 - April 17, 1964

4th Term

April 27 - June 19, 1964

1964-1965

1st Term

September 10 - December 23, 1964

School Holidays

Columbus Day; Armistice Day; Thanksgiving Day and the day following; Washington's Birthday; Good Friday; Patriots' Day; Memorial Day; and the Seventeenth of June. If one of these holidays falls on Sunday, the schools are closed on the following day.

Offices at 1700 Cambridge Street

Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day, excepting Saturday.

Evening Schools

There are two terms of the evening schools. The first term begins on the second Tuesday of October and closes one week previous to the closing of the day schools for the Christmas holidays. The second term begins on the first Tuesday of January, except when that day falls on New Year's Day, in which case it begins on the Thursday following New Year's Day, and continues for at least twenty-five evenings. Vacations and holidays are the same as in the day schools.

To the Honorable, the School Committee:

I submit herewith my nineteenth annual report which is the ninety-sixth in the series of annual reports of the Superintendent of Schools and the one-hundred-twenty-fourth in the printed reports of the School Committee of Cambridge.

The year 1963 has been a notable one for our country and for the Cambridge Public Schools. On the local scene, the Rindge Technical School was the center of public attention on several counts and at several times. The School celebrated the 75th Anniversary of its founding in 1888 as the Cambridge Manual Training School. Headmaster Emeritus John W. Wood, who has been associated with the School as pupil, teacher, and Headmaster almost from its beginning, is eminently qualified to write its history. This Mr. Wood has done; and, I am publishing his work as part of this report.

Also, in 1963, the School Committee chose to re-examine the educational philosophy and goals of this School in terms of pupil needs in this automated space age. Despite the lure of federal and state aid for vocational education, the Committee decided to continue Rindge as a technical school rather than as a narrowly vocational one. In my judgment it was a wise decision because the rapidity and revolutionary nature of far-reaching technological change lay upon us, who are responsible for public education, the duty to provide pupils with that solid, broad background which facilitates occupational change with the least possible loss of momentum to the individual in terms of salary, seniority, loss of work time. To make doubly sure that we educators do not lose contact with reality, an Advisory Board from business and industry has been formed to work closely with the administration and faculty of the Rindge Technical School to the end that the School's curriculum be promptly and constantly responsive to significant scientific and technological change.

The Rindge Technical School is, of course, an expensive school to maintain. Costs will continue to rise. Superannuated and obsolescent equipment in shops and laboratories must be replaced on a continuing basis if the school is to maintain its standards and its reputation. Teachers' salaries are constantly on the rise; and, we are competing closely with industry when we recruit teachers for Rindge in certain instructional areas. I cannot foresee, therefore, anything other than rising per pupil costs at Rindge. State and federal aid do offer a measure of relief to the local real estate tax payer. Yet, this measure of relief is denied us because of a narrow definition of vocational education, its organization and administration which were valid and necessary, perhaps, in an earlier day. I am convinced that modernization is necessary here.

Much of the objection to strictly vocational education (valuable and necessary as it may be for some pupils) is that it is centered almost exclusively on the teaching and learning of facts and skills. Even the half school day allotted to academic work is plainly labelled and strictly interpreted as, "Related Academic Work." To be sure some facts have to be taught and learned in every school from the pre-primary to Graduate School. But, it is also certain that, as man comes to understand his environment more clearly and fully, some facts change. What then?

There is no substitute for the laboratory table, no substitute for pupil involvement in experimental work at his own level in the teaching and learning of the physical sciences. And there is no substitute for an adequate library in the teaching and learning of the social, the pure and applied sciences, as well as of the liberal and fine arts. The teacher who has never heard even his slowest class say, "Let's find out!", has missed one of life's greatest moments and has failed to accomplish one of his primary tasks — the stimulation of intellectual curiosity.

The satisfaction of the pupil's intellectual curiosity is a must if his education is to prove itself relevant, personally meaningful. The school library is the teaching device without peer for this purpose. To the extent that it helps the pupil solve his problems here and now, a library becomes the place of early, perhaps first, resort whenever, in the near or distant future, facts must be verified, clarified, or determined. And the more literate, the more intellectually curious, the more well informed our citizenry is, the safer are our democratic institutions and our way of life.

It is, therefore, with great personal satisfaction that I record here in this context the realization in 1963 of the recommendation I made in 1947 that a centralized school library be established in the Cambridge High and Latin School. In 1947, I also recommended a plan for the activation of centralized school libraries in each of our elementary schools. I am happy to note that in 1963, library furniture was ordered for the Longfellow School, the second of our elementary schools to be so equipped. The Cambridge Public Schools have taken a giant step forward.

Unquestionably, the home, the neighborhood, the school and the church are the major influences in the socialization process: the ongoing process whereby and wherein each of us learns those ways of thinking and acting which are the marks of the civilized member of our society. The increasing share of public attention and interest which Civil Rights are receiving in our country makes it imperative that any agency of our society, which plays as important a part in this process as does the school, pause to reassess its functions and functioning.

In terms, then, of this socialization process, just what is the school's function in teaching those ways of thinking and acting with respect to Civil Rights which are the marks of the committed citizen of our country? Surely, it is our responsibility to teach something more than the bare facts of Civil Rights. Must we not teach that the individual's Civil Rights impose Civil Duties on his neighbor? Is it not properly our responsibility to teach those ways of thinking and acting which make possible the fullest possible participation of every individual in all aspects of community life?

The Cambridge Public Schools accepted this responsibility years ago. In 1954, we issued to our classroom teachers our "Curriculum Guide for Democratic Human Relations" which was several years in preparation by a Staff Committee. It was an outgrowth of an in-service training workshop offered our teachers under the joint sponsorship of the Cambridge Civic Unity Committee, the Harvard-Boston University Extension Courses, and the Cambridge Public Schools. This "Guide" offers a wealth of practical suggestions for using the subject matter of all areas of instruction as a spring board for teaching the practice of democratic human relations as "an all day every day" type of operation. With the possible exceptions of Chapter 2, "A Sociology of Cambridge," and the bibliography, both of which may need up-dating, this "Guide" is as useful today as the day it was issued.

In November, 1963, a Citizens' Committee on Negro History was formed to work with our Elementary Curriculum Committee to the end that the Negro's contribution to our history, literature and art forms may be adequately covered in the appropriate curriculum areas. I think it should be noted that this Citizens' Committee is of the opinion that no separate course in Negro History be introduced into our curriculum. It recommended, rather, that, just as in the case of the members of other groups, the contribution of the Negro be noted where it is natural, logical and proper to do so. Because textbooks generally have overlooked the contribution of the Negro, we may have to develop our own resource units. At this moment, our Elementary Curriculum Committee is surveying the field and gathering materials for evaluation. And, other things being equal, the so-called "integrated textbook" will be preferred in the future.

All this is done, of course, in the interest of truth. I am firmly convinced that the results will prove without question that it is indeed truth which makes men free. For it all contributes mightily to the clarification of the image of the Negro and his role in our society and culture. In fact, I know of no more effective means of opening the way for the Negro's full participation in all aspects of community life.

In concluding this section of my Report, I wish to assure all citizens of Cambridge that we, who are charged with the responsibility of educating your children, are people of good will. We see your child as an individual human being, worthy of our profoundest respect, heir to the greatness of our country, and trustee of its future.

The individual's participation in all aspects of community life is to be circumscribed only by his own ability, and his own desires. Anyone, regardless of his ancestry, whose ambition outruns his ability is in for a hard time and a sad awakening. Equally tragic is the position of the non-achiever who can but does not. Both types of individuals are to be found in our schools; both types are to be found in each racial, ethnic, religious, and socio-economic group. How do we help pupils solve problems of this nature?

An intensified guidance program may prove to be the best answer. To this end, we have inaugurated a pilot guidance program in grades 7 and 8 of four of our elementary schools; the Fletcher, Houghton, Roberts and Webster. The Fletcher School, be it noted, houses both the regular and the Academically Talented grades 7 and 8. Miss Mary F. Moran, whose graduate work has centered on guidance in the Elementary School, has been assigned full time to this program as Guidance Counselor. It is too early yet for any sound evaluation of the program. Yet it is only just to note that the Masters and teachers closest to the program are most enthusiastic with respect to the results thus far observed.

In 1963, the Cambridge Public Schools took another major step in helping our pupils realize their potential. For the first time in more than 30 years, we conducted a Summer School. Enrollment was re-

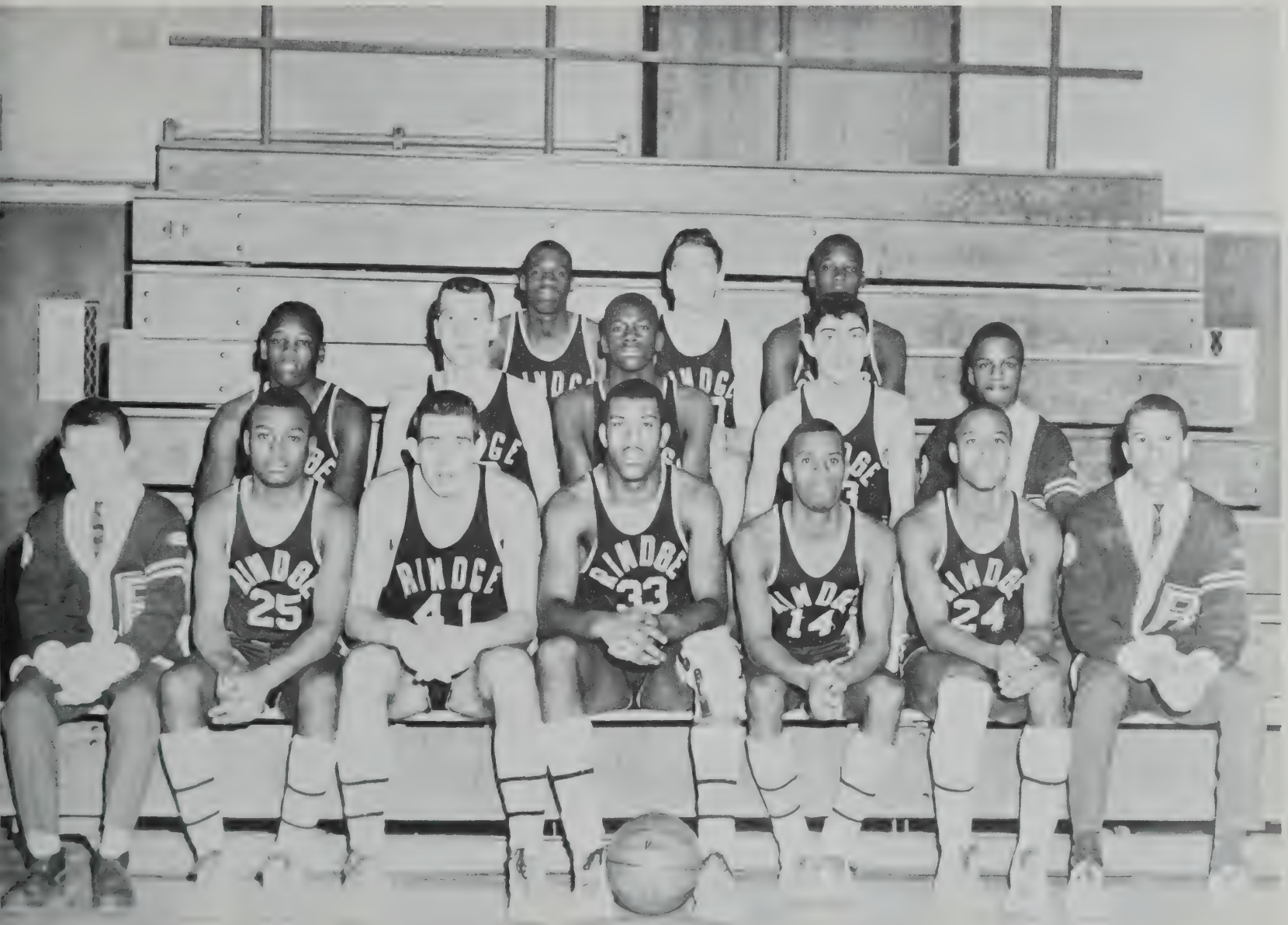
stricted to residents of Cambridge currently enrolled in a secondary school. There was a tuition charge of $20.00 per course except for Driver Education, for which the fee was $35.00. One full scholarship and one partial scholarship were awarded on the basis of need.

The Summer School enrolled pupils whose goals fell into four different categories. Some were interested in making up for credit course work failed in a previous semester. Some wished to review the work of a course already passed in order to gain a more solid foundation for future work. Some desired to gain a pre-view of a course to be taken at a later date for credit. Many of those who enrolled in Personal Typing, the Art Workshop and in Driver Education were interested in personal enrichment. In 1964, we hope to increase our course offerings. We confidently expect our enrollment to increase.

In conclusion, I wish to express publicly to the Headmasters, Masters, Directors, Teachers and all other employees my sincere appreciation for their co-operation, assistance and support. I wish, also, to express my deep gratitude to His Honor, the Mayor, and to the Members of the School Committee who have given their time so generously, and who have been so co-operative with their advice and counsel.

John M. Tobin

Superintendent of Schools


25
41
33
14
24

City is Proud

RINDGE CHAMPIONS SEEK NEW ENGLAND TITLE NEXT

By George Sullivan

A holiday atmosphere prevails throughout the city as Cambridge salutes the Rindge basketball team.

Tech reigns as Eastern Massachusetts champion for the second consecutive year, the fourth time in history (it also won back to back in 1940-41).

Rindge successfully defended its Class A title by easily defeating Durfee of Fall River, 79-68, in the Tech Tourney finale Saturday night before a capacity crowd of 13,909 at Boston Garden.

It had eliminated Gloucester, New Bedford and Malden in earlier rounds.

New England's Next

Rindge now proceeds to the New England Tourney.

It will meet Vermont champion Spaulding High of Barre Saturday night at the Garden. Both have identical 21-1 overall records.

The New Englands will continue the following weekend — the semi-finals March 22, the finals March 23.

Rindge Tech's Tourney triumph actually embraced a triple, across-the-board parlay for the second successive year.

Not only was it the team's second title in a row, but it also marked these features:

(1) Eddie Culhane directed his second championship production in as many years as head coach — probably a record, and (2) Billy Hewitt — totalling 105 points and 84 rebounds in the four-game set — became the second Rindge captain in as many years to be named Tourney MVP (Larry Stead won it in 1962).

Victory Celebration

History also repeated itself in the triumphant midnight motorcade through city streets, triggered by the victory.

A half-hour after Rindge had won the title Saturday night, the team was met as it entered the city at Lechmere Square by a throng of well-wishers.

Beginning at approximately 11:15, the noisy entourage leaning heavily on sirens and horns — threaded its way through Cambridge. The motorcade was headed by a police escort and the automobiles of Mayor Edward A. Crane and City Councillor Walter Sullivan. Then came the team atop two fire engines, followed by some 100 cars.

It proceeded along a route of Cambridge St., Prospect St., Central Sq., Western Ave., Putnam Ave., Sullivan Sq., Mass. Ave., Harvard Sq. and Concord Ave. to Alewife Brook Parkway.

There it was climaxed by a midnight supper at the Homestead Restaurant.

The team unwound over a two-hour meal — a steak main course with fried clams on the side.

The informal dinner party featured the ideal menu — plenty of food, little oratory.

Mayor Crane keynoted the celebration with a brief message of congratulations.

The Mayor and Councillor Sullivan represented the City Council. Vice-Chairman Anthony Galluccio, committeemen Gustave M. Solomons and James F. Fitzgerald, the School Committee, Headmaster Robert R. Sweeeney, the school; and director Joseph A. Kozlowsky, the athletic department.

Many other city officials had attended the game.

The "Night to Remember" concluded about 2 a.m. when the mayor, headmaster, athletic director and coaches Culhane and Dick Calnan chauffeured the players to their homes.

Stranded in Subway

It was the third time that night that many of the players had won a special escort. Half the team had received a police escort en route to the game from Park St. MTA terminal to the Garden when an accident developed in the subway.

The stranded players telephoned a quick S.O.S. to the Boston Police who relayed the call to Cambridge police. A patrol wagon was dispatched from Central Sq. headquarters to Park St., and the players were escorted to the Garden in style.

No other Tech Tourney team could claim it arrived in the back of a police wagon. And three hours later, none other could claim the title.

Culhane Tells Why

Culhane told why afterward: "The team was great, just great. It ally matured — came of age — in the tourney, when the chips were wn.

"Where some teams cracked from the pressure, ours jelled.

"And when I say everyone was just tremendous, I mean everyone, e regulars — Billy Hewitt, Lou Herbert, Tom Dempsey, Bob Ward d Tom Samalis — right down to the manager.

"Every boy on the squad played in that victory over Durfee.

"And what defense! You couldn't miss that as the key. They were ing the man-to-man system with near perfection.

"We had troubles at times, of course.

"We were far off our regular game against Gloucester and New dford. But we improved each game, although we never hit our full tential.

"I'm hoping we're saving that for the New Englands.

Kids "Magnificent"

"I can't say enough about the kids, though. They're magnificent — boys as well as athletes.

"They're a great bunch with a great attitude. And it's that attitude t's been the key to our success all season.

"They thrive on work and approach it with an A-1 attitude.

"It's well that they have. We'd never have won otherwise.

"Four of our first six men this season were newcomers. That's why tourney victory is all the more outstanding and why winning this son is even a bigger thrill for me than last year.

"So you've got to give all the credit in the world to the kids — d to the many people who stood behind us and helped build up the rit.

"There were so many people.

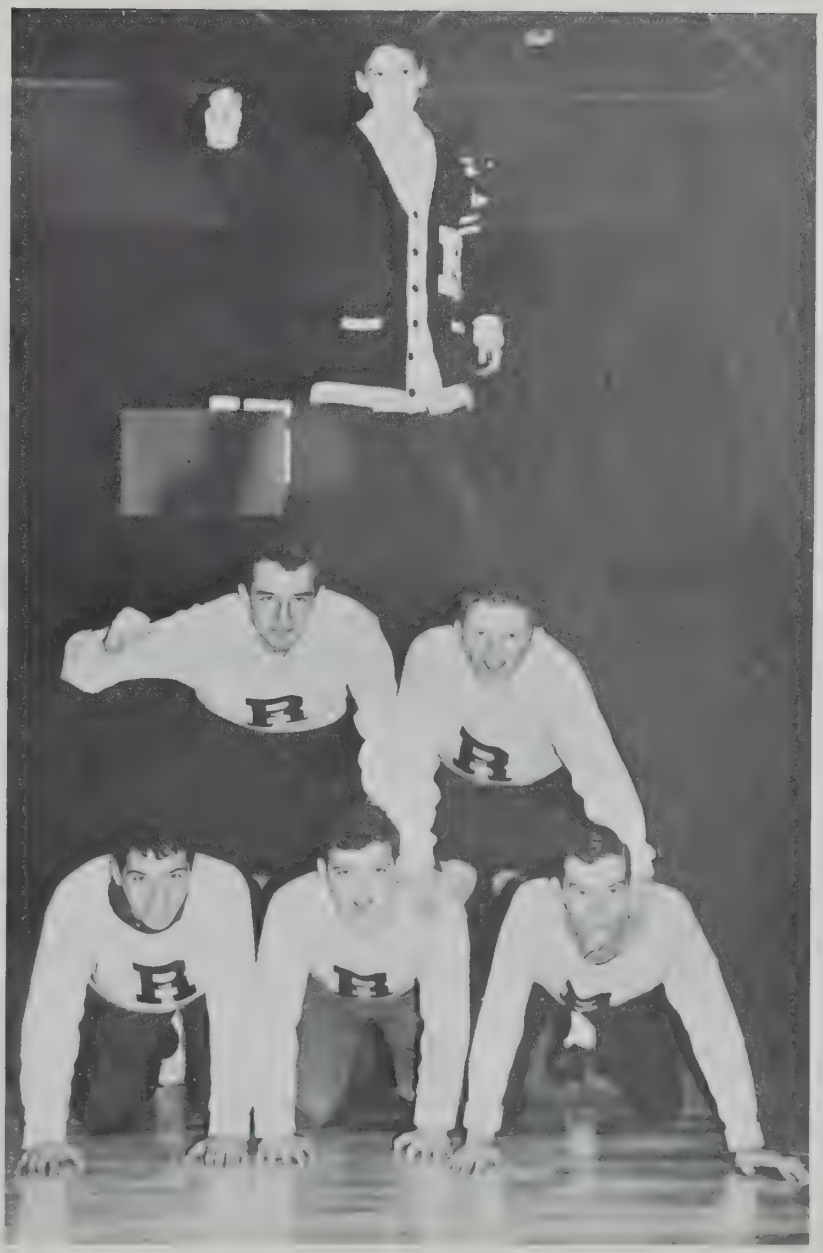
Praises Teachers

"You know of most of them. Some may have been missed in the ffle, though.

"The Rindge teachers and trainer Bill Linskey, for example.

"Most of those teachers were at our games all year supporting the s. It meant a lot.

"And 'doc' was, as usual, a miracle man all year — never more so n when he froze Herbert's sprained ankle in the second period of title game and had Lou back in for the all-important last half.



"And there were so many other people who helped in so many ways.

Sees Real Chance

"So the spirit is contagious. And because the kids have it, I think they'll have a real chance in the New Englands.

"I doubt if we'll be embarrassed in the first round as we were a year ago.

"I think our desire will pay off.

"Spaulding should give us all we can handle, though. I haven't much line on them, but I understand they've averaged 79 points a game, and no opponent came within 20 points of that in the state tourney. And they have a twin act of 6-5 brothers — David and Alden Hale.

"Just on the record alone they should be tough. Any team that is state champ and has a 21-1 record speaks for itself.

"And, of course, you can never tell what'll happen in a one-game elimination tourney.

"But don't discount our desire. I think it'll pay off."

Other Honors

Saturday's post-game testimonial was just one of more to follow for the Rindge champions.

The team was honored at the Tech Tourney Champions Dinner Monday night at the Parker House, Boston. Culhane accepted the team trophy, Hewitt the MVP award, and each player an individual trophy.

Culhane, Calnan and Hewitt were the guests at a dinner meeting of the Cambridge Junior Chamber of Commerce Tuesday night at Igo's, Porter Sq.

The Cambridge Lodge of Elks again plans a team testimonial next month.

And there may be other tokens of recognition.

The Rindge Technical School

Cambridge, Massachusetts

1963

A Short History of the Rindge Technical School

By John W. Wood

1963

THE RINDGE TECHNICAL SCHOOL

Certain events of the past year have impressed upon me the importance of bringing together the long and somewhat involved story of the institution we now know as the Rindge Technical School. To undertsand its activities and their motivating forces requires a background of historical development.

When my mind goes back to the years 1885 to 1890, I am most intrigued by the changes that the intervening years have brought to Cambridge. Ours was a simple, quiet town with tree-shaded unpaved streets, many of them broad avenues of comfortable, attractive houses surrounded by well-kept green lawns and attractive gardens. There were no automobiles, few telephones. Our school number was Cambridge 5, hardly an invitation to sociability. At night the streets were inadequately lighted by gas lamps. The word 'automation' had no yet been coined. In the minds of our Cambridge people, there was a deep respect for education, perhaps because it was so hard to come by; and, as in all New England, a deep conviction prevailed that education came from books and that its roots were in the classics.

It is important to remember this background when we come to consider Mr. Rindge's decision to establish a manual training school in Cambridge as a gift to the boys of the city. Today it is hard to understand how much this proposal constituted a distinct break with tradition. Fortunately, Mr. Rindge chose for advisors a group of highly educated men who, for disinterested public spirit and broad-mindedness, could hardly be matched anywhere in America. It must suffice here to name

a few of them: The Chairman of the Advisory Committee, William E. Russell, then Mayor of Cambridge; Colonel Thomas Wentworth Higginson, Andrew McFarland Davis, Samuel L. Montague, and Harry Ellis. Mayor Russell, afterward Governor Russell, was the moving spirit in the enterprise, actively supported by Colonel Higginson.

Their recommendation of Mr. Harry Ellis to be the organizer and director of the new school was accepted wholeheartedly by Mr. Rindge, although the two men had never met. As things turned out, no better choice could have been made. Here was a man of great natural ability — young, courageous, and imaginative. He had no previous academic experience, which may have been fortunate, as he was unhampered by the inhibitions and prejudices of the typical school man. In any event, the project went forward with amazing speed. Mr. Rindge's approval was given in May of 1888. By the following September a general program of instruction had been adopted and a building prepared for immediate occupancy to accommodate 150 boys.

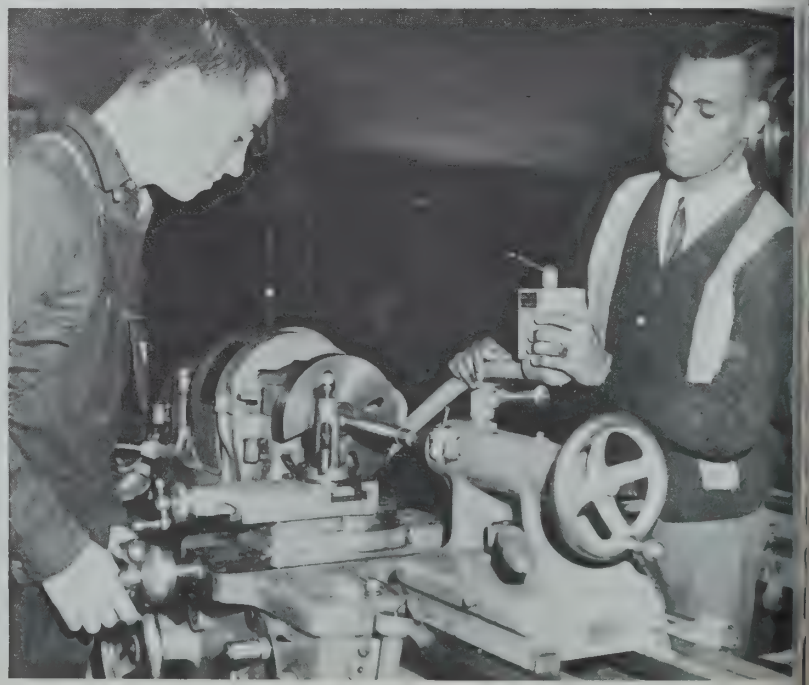
The miracle of building a school of this size and novel character in one summer had been accomplished and the doors were ready to open in September. To be sure, all departments were not completely equipped, but at least work could begin. In design the new red brick building was attractive in appearance and admirably adapted to its proposed use. In our modern jargon it could have been approved as 'functional.' There was a main section of two stories and two one-story wings, in one of which was a wood-working shop and a small foundry; in the other, a machine shop and steam engine. The main section contained offices, a boiler room and a blacksmith shop, a drafting room and two academic classrooms.

It is perhaps an understatement to repeat that Harry Ellis and his assistants must have spent a very busy summer. They had few precedents to guide them, as all of this development was new to the educational world.

In addition to the ordering of the physical plant, a faculty had to be assembled and courses of study planned. These efforts perhaps posed a greater problem than the construction of the building, but again they were solved and carried through with eminent success. In those days men of high character and skill in the practical work, which the school planned to teach, were found to be readily available. Four men with outstanding qualifications were found. They immediately organized their shops and improvised courses of study.

Of these four shop men, Alan K. Sweet, who acted as assistant head master, was in charge of the machine shop. He was a highly educated mechanical engineer. James G. Telfer was appointed teacher of blacksmithing. He was an artist in any kind of wrought-iron work and was equally adept at catching brook trout — an unforgettable character. The wood-working department was ably managed by Fred Furbish, an expert in wood-turning and pattern-making, and by Wallace Blandin in carpentry — both master workmen.

On the academic side, every Rindge boy of the period likes to remember Miss Myra I. Ellis, who came to us from teaching in the elementary schools of Cambridge, with a training and background which enabled her to meet the demand of our high school classes. She was a truly remarkable teacher with a personality which made her influence felt in every one of the school's activities. For a few months she was the acting head master. Another outstanding character was Charles F. Warner, a thorough student of science, who afterwards became head of the Springfield, Mass., Technical High School.



The general plan of development over the first three years was to add subjects as the time arrived for them, year by year, until the complete course of three years had been established. Thus, by unremitting toil and the exercise of wise judgment and consummate knowledge of men, Harry Ellis successfully completed his task.

This course of study, taken from the C.M.T.S. Catalogue for 1892 shows it in its final form.

First Year

English High School	Hrs. per wk.	Months	Manual Training School	Hrs. per wk.	Months
Elementary Geometry	5	5	Drawing	5	10
Elementary Algebra	5	5	Carpentry,		
English History	3	7	Joinery	12	10
Civil Government	3	3	Iron-fitting,		
English Language, English Literature	2	10			

Second Year

Algebra	5	10	Drawing	5	10
Physics	3	10	Pattern-making		
English Language, English Literature,	2	10	Casting,	10	10

Third Year

Advanced Algebra	3	5	Drawing (alternate days)	2	10
Plane Geometry	3	5	Machine-shop Practice		
English Language			(alternate days)	2	10
English Literature	2	10	Note. - 4 hr. daily in E.H.S.		
Physics	5	5	2 hr. daily in M.T.S.		
Chemistry	5	5			
French	5	10			
Lectures on Civics	–	–			

Fourth Year

Solid Geometry	2	5	Drawing (alternate days)	2	10
Elementary			Machine-shop Practice		
Trigonometry	5	3	(alternate days)	2	10
Reviews in Mathematics	2	2	Note. - 4 hr. daily in E.H.S.		
Chemistry	3	10	2 hr. daily in M.T.S.		
French*	3	10			
English Language					
English Literature	2	10			

*Elective

First Aid Lectures by Dr. Frederick W. Taylor
Singing by Albert L. Briggs
The Rindge Band — Albert R. MacCusick, Leader
The Fire Drill Battalion directed by Superintendent Harry Ellis

This course of study, for the year 1892, is interesting in itself, and because it affords a valuable comparison with the program of 1962, see page 20. That the school was to be unique in its field was evident from its inception.

From the beginning there was no lack of applicants for membership. Rather than delay the opening of the school to put on the finishing touches, these able administrators put the boys who were admitted to work to help complete the interior of the building. The responsibility was good for them and added to their pride in the school. It was part of the Harry Ellis philosophy that any experience in the activities of life is educational and might become of practical use to a boy in after years.

Along with the excellent classroom instruction went many other activities rarely found in the schools of the time. The boys were organized into a fire drill battalion, with simple uniforms and a military cap with a hard visor carrying the letters C.M.T.S. (Cambridge Manual Training School) in silver letters. These caps soon became a familiar sight on the streets of Cambridge as the boys went back and forth to school.

Here I must insert just a word concerning the name of the school. Mr. Rindge modestly maintained his preference for this title, Cambridge Manual Training School, which omitted his name. However, after he retired from the support of the school, the Cambridge School Committee changed the name to Rindge Manual Training School. In after years, when the scope of the training had broadened, Mr. Frank Parlin, then Superintendent of Schools, suggested the name Rindge Technical School, which it has been ever since.

To return to the fire battalion, its unique character and practical efficiency attracted widespread attention to the school. As an adjunct to the drill, a marching band was organized which took part in the battalion drills, and also proudly headed the school when marching in parades. The band became famous for its excellence not only in parades but also in concert programs. It grew from the original fife-and-drum corps to a band of 40 or 50 pieces.

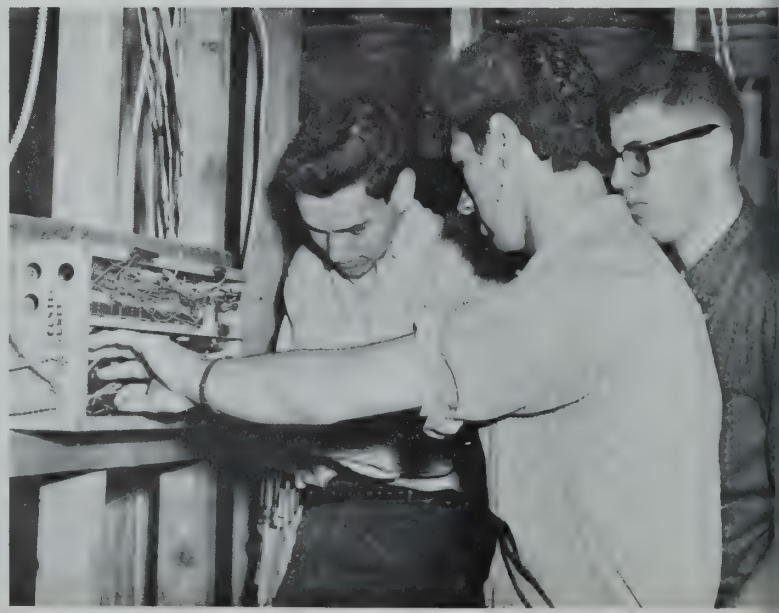
To facilitate the drill, in the main hallway was stationed a hose reel that could be hauled up and down the steps on steel tracks, and an extension ladder was located in a convenient place to be hauled out on runners. It was a stirring sight when the alarm rang and the boys came running from every direction, one group manning the hose reel to swing it out the door, down the steps to lay a long line of regulation fire hose and attach it to a convenient hydrant, while another group raised the ladder to the roof edge and mounted it to play a stream of water on the roof. It was great fun for the boys. Later a second hose reel and an old hand tub (pump) were added as was a substantial drill tower built for practice with scaling ladders, life saving nets, and life belts.

The summers of 1891 and 1892 saw the Rindge boys in camp, as a school, on Cow Island, Lake Winnipesaukee, N. H. Each boy paid a modest part of the expense of his outing and received untold benefit in health and good companionship

All these and many other good things that brought fame to the school could be attributed to the courage and self-sacrifice of Harry Ellis, ably supported by Mr. Rindge. These activities explain the enthusiasm of the Rindge boys for their school. Unfortunately, these first good things had to come to a sudden end. Harry Ellis died in April, 1895 at the age of 35. His was a short life, crowded with a multitude of interests and of good works — short indeed, but long enough to make an indelible impression on the lives of many Cambridge boys and to prove to the educational world the value of his methods.

Those who were present could never forget the simple funeral ceremonies for their beloved leader held in the hallway of the shop building, where the body lay in state. After a moving tribute from the Reverend Doctor McKenzie, the boys of the school, in single file, marched past, each boy dropping a violet on the casket as he passed by. A bronze memorial tablet may still be found in the Rindge building, bearing the name of Harry Ellis and the inscription: 'Greater love hath no man than this: that a man lay down his life for his friends.' It may be a bit sentimental, perhaps, but heartfelt.

Thus ended an era in the life of the school. Charles H. Morse, assistant head master, was appointed to take charge, and he carried on, perhaps as well as anyone could, in the place of the extraordinary



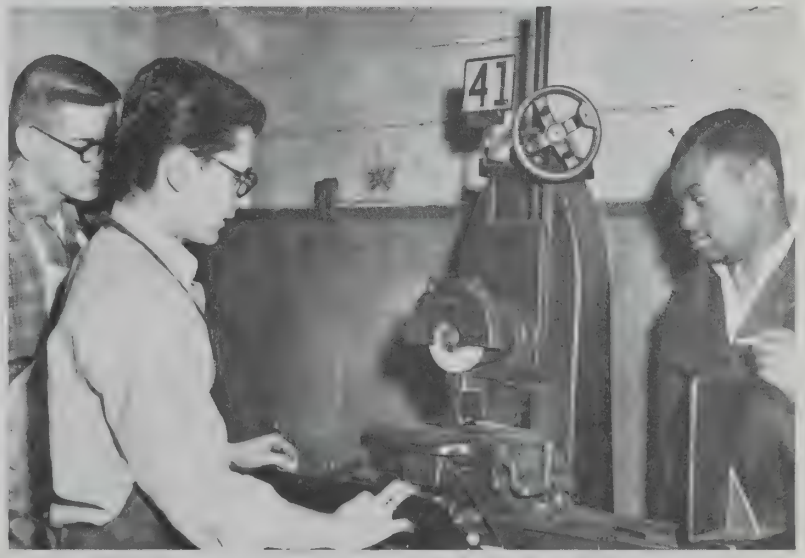
personality that Harry Ellis was. The fire drill and summer camp, along with many other distinctive activities, gradually faded away. Then, to complete the change, in 1898 Mr. Rindge wrote to the Mayor of Cambridge that he could no longer carry the financial burden of the school and desired to turn over the buildings and equipment, without restrictions, to the City of Cambridge.

In 1907 Mr. Morse resigned to accept an appointment as Director of Vocational Education for the State Board of Education. At this time 'vocational' education (the trade school) was receiving much attention from educators under the stimulation of funds furnished through the Federal Government by the Smith-Hughes Act. The writer, who had been teaching at Rindge since 1899, was appointed to succeed him.

The great problem facing the new head master was, of course, how to preserve the spirit of the old school under the more rigid conditions of public administration, and to carry out Harry Ellis' theory that the more practical experiences a boy had, the better he was educated.

From the beginning it had been hoped and expected that the school training would be a substantial aid to its graduates in finding and pursuing an occupation. Mr. Rindge had placed conspicuously on the front of the building the motto: 'Work is one of our greatest blessings. Everyone should have an honest occupation.' At the same time he had made it very clear that the training should be broad enough to enable a boy to prepare for college, specifically mentioning the Institute of Technology.

At about this time much interest was being shown in 'apprentice' training, and it was deemed essential that this training must be given in so-called 'Trade Schools.' Unfortunately, however, the Trade School was visualized as a place for intensive hand training with only rudimentary academic training and so developed on a lower educational grade than the long established high school. Therefore, it seemed evident that it was necessary for us to guard against two tendencies: first, the danger that the school become just an academic high school with a few shops added; (the pressure would be great to have us conform to the traditional schools by which we were surrounded, which were better understood by the boys' parents) and second that we might allow ourselves to sink to the level of the trade schools which were



and education necessary for non-commissioned officers of industry and at the same time leave a real opening at the top for entrance to technological or other colleges are doing a real service to the coming generations. There should be terminal courses for all who are limited by nature to terminal courses, but there should always be the outlet to higher education for all who have the desire and aptitude for higher education.'

These quotations present briefly the thinking of the men who had developed the Technical High Schools of America. It is a statement of their conception of this school which could be said to have grown up spontaneously in various parts of the country in response to the changing needs of our national life.

Let us now return to the Cambridge scene. As outlined above, we were badly handicapped by our outgrown living quarters, but we felt that an important gain had been made, in that our ideals had been authoritatively stated in such terms as to provide safe guidance for the future. This was important, as we were soon to be called upon to face a crisis in our history. The dwelling houses we had adapted to take care of our increased membership turned out to be incapable of withstanding the strain of school use. And, more importantly, the Washington Building was found to be so defective that it was beyond hope of repair. At filing periods the whole building shook perceptibly. This condition became so bad that the building was condemned by the State Department of Public Safety as structurally unsound. Finally these buildings were ordered closed. The only solution was to build a new building, as we were forced to vacate.

Thus, in September 1932, we were faced with the problem of finding quarters elsewhere until a new building could be provided. An anxious canvass of possibilities showed that the old Harvard Grammar School had been vacated when the school was moved across the street into a new building. We could also use some small shops in the basement of this building. Then, to complete our new quarters, Harvard University graciously allowed us enough room in their new Biological Laboratory to take care of the rest of the boys. We immediately organized the classes in these two refuges. The classes in the Biological Laboratory were under the direct supervision of Mr. James F. Conlin, Assistant Headmaster. The classes in the Harvard Grammar School, with the shops across the street, were in charge of Mr. Francis T. McCabe, another Assistant Headmaster. Room was found in the Laboratory for the main office. We lived under these difficult conditions for more than a year.

Allowing us the use of a Harvard building was an especially generous act on the part of President Lowell, as it delayed his plans for developing the Biological Department for many months and subjected the college people to possible annoyance from the unaccustomed presence of a large number of boys on their premises.

With this problem out of the way, the question of the new building faced us. It should be remembered that at this time our nation was in the grip of one of the worst financial crises in its history. A new building takes a lot of money — the dilemma has only to be stated to be appreciated. Our temporary quarters offered no security.

However, our worries were soon to be over. Fortunately for us, Mr. Richard M. Russell was the current Mayor of Cambridge. It is an interesting coincidence that his father, William E. Russell, had been Mayor of Cambridge when Mr. Rindge was planning his gifts, and had been the chairman of the committee which recommended the establishment of the school. At any rate, upon learning of our plight, undaunted by the financial situation, Mayor Russell affirmed his willingness to go forward with a new building project if we would be responsible for the technical details. Our relief and gratitude were so deep that any exertion on our part would not have seemed too much. Fortunately, again, with a faculty numbering such able members as Edward Killian, John Murray, Albert Coyne, John Mellen, James MacDonald and Abbott Paine, we were more than ready to do our part. How the building was financed by Mayor Russell is an interesting story in municipal government — an interesting story, but too long to tell here. Suffice it to say that it is a shining example of what one man of courage and decision can accomplish against seemingly impossible obstacles.

Mr. Ralph Harrington Doane was chosen by Mayor Russell to be the architect — another extremely fortunate choice. Mr. Doane was undoubtedly the peer in classical design of any man available, and to this asset he added a rare flexibility in meeting the requirements of a novel technical problem. This problem arose from the fact that the design of the building had to be adjusted to the needs of a wide variety of shops and laboratories. Moreover, there were no precedents to guide

him, as no technical high school building had been built for many years. He solved the problem by organizing the technical knowledge of the teachers on our staff whose years of study and experience made them expert advisors.

The final result was indeed remarkable — an outstandingly beautiful structure, unique in its combination of utility and attractiveness. It was designed to accommodate 1500 students, with a beautiful assembly hall, an adequate gymnasium, lunchroom facilities, well equipped shops and laboratories expertly designed with well-lighted class and drawing rooms.

Two ceremonies stand out in my mind — the first at the laying of the cornerstone in 1931, and second, the day, a year later, when the classes marched from their temporary quarters to occupy their new building. The pleasure of the moment may be imagined. At long last our days of improvising living quarters were over and we could be all together under one roof. It was interesting to watch the effect of the new surroundings on the spirit of the boys — not only did the improved facilities open out new horizons, but unconsciously they responded to the new surroundings in a more subdued manner and even more careful personal habits. The day had come, too, when instruction in every line could be promoted without the handicaps of limited and ill-designed quarters. Also, as a result of inviting surroundings, membership increased rapidly, at one time reaching a peak of 1700.

To me, the fact that Rindge graduates have been successful in a wide range of careers is interesting, but most of all it is significant that their technical training has allowed them to go into such a wide variety of occupations. Trade training presupposes that if a boy is trained as a machinist he must follow the trade for which he was trained. His possibilities are thus limited to a single field.

In 1938, the Alumni Association planned a three day meeting in observance of the Fiftieth Anniversary of the founding of the school. The Association, founded in 1896, has been remarkable in many ways. In the sixty-six years of its existence it has never failed to hold a reunion, and has been always ready to come to the aid of the school in time of need. At the Fiftieth Anniversary it organized visits to see the new school, planned class reunions and, as a climax, held a meeting in the Assembly Hall. A hard-covered book of more than 50 pages 'After 50 Years,' edited by Chester E. Swenson, '21 was also published.

The program of the Meeting, November 12, 1938, should be preserved, as I do here —

RINDGE ALUMNI ASSOCIATION
SEMI-CENTENNIAL MEETING

Saturday, November 12, 1938, at 2:00 P.M.

Processional ..... Francis Hagar '19 Organist

1. Invocation ..... The Reverend Edgar R. Walker '18
2. Greetings
   The Semi-Centennial Committee
   Edward H. Donovan '22, Chairman
   The Alumni Association
   John W. Lagsdin '29, President
   The City of Cambridge
   His Honor, John W. Lyons '11, Mayor
   The Cambridge School Department
   Dr. Michael E. Fitzgerald, Superintendent
3. Address: 'Fifty Years of Technical Education'
   John W. Wood, '93, Headmaster
   'Hail Rindge To Thee'
4. A Message from Harvard University
   'The Contribution of The Secondary School'
   Dr. Richard M. Gummere
5. A Message from Massachusetts Institute of Technology
   'The Relation of the Technical High School to the Technical College'
   Prof. Raymond D. Douglass

Prayer of Thanksgiving ..... Faculty Chorus

6. Address: 'The Early Years of Cambridge Manual Training School'
   Hon. Richard M. Russell '33 (hon.)
7. Address: 'The Past, Present and Future of Electrical Communications'
   Frederick P. Kolster '03
   Chief Engr. Tel. & Tel. Co.
8. Greetings from the Sons of the Founder
   Samuel K. Rindge

Violin Solo ..... Richard Hagopian '03

9. Announcement ..... Wilburt D. Jones '03
   Chairman, Finance Committee
10. Benediction
    The Right Rev. Augustine F. Hickey, D.D.

Star Spangled Banner

In thinking back over the years that have passed I am impressed by the versatility of the careers of our graduates. I can best demonstrate this by naming at random some of the men and the careers they have to their credit: General Francis Wilby, U.S.A.; Admiral Reginald Shaw, U.S.N.; Radio pioneer Frederick P. Kolster; Captain Arthur L. Morash, U.S.N., Author, Professor of Electricity at the Naval Academy, Annapolis; John J. Curry, teacher, and then Cambridge City Manager; Joseph Guiney, builder, assessor and leading real estate expert; William H. Doherty, Vice President, American Telegraph and Telephone Co.; Chester Holmes, Supt. of Schools in Washington, D.C. and Malden, Mass.; the Rev. John Murray, S.J.; the Rev. Edgar R. Walker, Pastor; Fred Greer, mechanical engineer, Frank Scully, inventor; Dr. Winthrop Adams, U.S.N.; Dr. Pearce Leavitt; Dr. Neil McDonald and Dr. Kingsford Swan, Dentists; Edward Lennon, Vice President, N. E. Merchants National Bank; Walter S. Burns, builder; Paul Jewell, Professor, Ohio University; J. R. Wood, Sales Executive; Edward Larner, Insurance Executive; Charles Borland, Utilities Executive; James J. Shea, President, Milton Bradley Co.; Waldo Pike, Structural Engineer; Henry Dyer,, testing expert, C.E.E.B.; Walter Brennan, actor. I could, of course, go on indefinitely, but let this list suffice.

Given our group of highly trained teachers and wide variety of both mechanical and scientific equipment, it was natural that the question of advanced training should arise. For a time, after the war, we offered a program for advanced students including Physics, Mathematics and English. Our experience indicated that there were great possibilities for this type of instruction, but we did not develop sufficient demand to continue.

It is interesting to note that in the coming year, 1962-'63, these advanced lines of instruction are to be reinstated at Rindge, with a sufficient number of applicants to justify them.

The years that followed our occupation of the new building brought no new crises, and progress toward higher standards of instruction could go on without interruption.

In 1950, upon my retirement, Mr. Francis T. McCabe, Assistant Headmaster, was chosen Headmaster. Mr. McCabe retired in 1958 because of ill health. After a two year interim, during which the duties of the position were faithfully performed by Acting Headmaster, Wil-

liam J. Kelleher, Mr. Robert F. Sweeney was chosen Headmaster, an able and devoted administrator.

And now we come to our seventy-fifth anniversary year. It is devoutly to be hoped, that we have heard the last of the 'vocational' controversy, which had to be reargued as recently as last year. In this connection it is worth while to recount our assets. These constitute first, a beautiful building located right at the center of great educational institutions, as well as industrial and applied science activities. Perhaps the building is not yet quite adequately equipped for the most modern forms of instruction, but it contains a wealth of machines and tools of great value. To these is being added new equipment as fast as the need for new apparatus becomes apparent.

To these tangible assets should be added a student body of 900 boys, alive to all the important developments of our time, and active in the pursuits important to young men of their age, who win their share of scholarships, medals and championships. To instruct them we have an able faculty, well and adequately led, which has grown up gradually over a period of many years and can be expanded to meet any new demands of the future. The experience which these men have acquired is, of course, one of our richest assets.

We should not overlook the value of the loyal Alumni Organiza tion, ready at any time to actively guard the interests of the school. There is a rich tradition resulting from several generations of Rindge history.

To bind all this together the school has a guidance program to show the student how to use the school's instruction to meet his educational needs as well as to locate him in a job after graduation.

The greatest weakness in the vocational program to me is one that should never be overlooked. The fact that in a community like Cambridge parents would not send their boys to a school which did not furnish the possibility at least of preparing their boys for college. The college influence is simply too strong to ignore. Mr. Rindge emphasized this fact from the beginning. It is still more vital today.

As a result of all these years of discussion I am convinced that Cambridge will conserve its own interests by continuing to develop Rindge for the best interests of the boys of Cambridge. Admittedly, Rindge has its problems, but it also has unlimited possibilities. I hope the school will always remain the heritage of the boys of Cambridge as Mr. Rindge intended.

COURSES OF STUDY

The present day curriculum includes the following courses:

College Preparatory
Architectural Drawing
Art
Automotive
Electrical
Electronics
Mechanical
Printing

These courses are made up by grouping various subjects: Four years of English required of all: Mathematics including Algebra, Geometry, Trigonometry, Physics, Chemistry, Electricity, Electronics, History, Drawing, Shop Work, Physical Training, Music, Auto Driving and many others.

SCHOOL-COMMERCE DAY

Another, in fact, the tenth, School-Commerce Day took place on Thursday, October 24. At 9:00 o'clock that morning 693 seniors from Cambridge High and Latin School and Rindge Technical School and about 50 teachers met in assembly in Cleveland Auditorium at Cambridge High and Latin School. Invited guests included members of the Cambridge School Committee, Mayor Crane, City Manager Curry, City Councilors, and presidents of the three service clubs — Exchange, Kiwanis and Rotary. Chamber President John F. Rich presided over the meeting. Speakers were: Mayor Edward A. Crane, John M. Tobin, Superintendent of Schools, and the presidents of the two high school senior classes.

At approximately 9:30 the senior students and teachers took seats in the buses to which they were assigned and left for the industries or businesses selected by them for their School-Commerce Day visits. More than one group visited some of the places, due to classifications chosen.

Arrival time at the various establishments was between 9:45 and 10:00 a.m. The groups were met by representatives of the participating firms — taken on tours of the plants or business — then either listened to a talk describing the work and the qualifications for various positions — or watched films which were educational. Following a question period, the luncheon break came around 11:30. Many companies took the students to lunch in company lunchrooms — still others took them to nearby restaurants — and a few provided box lunches for them.

This year's group is the largest group ever to participate in School-Commerce Day. Last year 505 students and 45 teachers took part. This fact should cause concern with both businessmen and educators. If almost 50% more seniors will be graduated from our Cambridge High Schools this year, where are they going.

Another set of statistics to be studied will be student choices. The ten year figures show a decided trend away from certain subjects such as woodworking and candy making. On the other hand there is greater interest in office machines, electronics, etc.

1962		1963
17	Advertising	26
20	Architecture and Drafting	13
10	Auto Agency (Service)	26
9	Auto Agency (Sales)	13
38	Banking	27
0	Candy Manufacturing	10
24	Chemistry (Chemical Laboratory)	28
0	Electric Light and Gas	19
51	Electronics	35
0	Engineering — Chemical	8
7	Engineering — Civil	10
19	Engineering — Electrical	26
19	Engineering — Mechanical	14
7	Fire Fighter	0
29	Hospital Work	32
30	Hotel Operation	33
13	Insurance	28
12	Machine Work	10
	Mental Health (Social Work — Psychiatry)	45
10	Newspaper	18
	Office Work:	
8	Bookkeeping	24
20	General Office	23
16	Office Machines	51
57	Secretarial	71
40	Police Work	60
20	Printing and Publishing	15
13	Research Operations	15
13	Telephone Technician	16

Host companies were: American Biltrite Rubber Company, Boston Woven Hose & Rubber Division; B. B. Chemical Company; Baird-Atomic, Inc.; The Blanchard Machine Co.; Cabot Corporation; Cambridge Association of Insurance Agents; Cambridge Chronicle-Sun; Cambridge City Hospital; Cambridge Electric Light Company; Cambridge Mental Health Association; Cambridge Police Department; Cambridge Trust Company; Cambridgeport Savings Bank; Carr Fastener Company, Div. United-Carr Fastener Corp.; County Bank and Trust Company; The Cuneo Press of New England, Inc.; The Eddy-Rucker-Nickels Company; W. R. Grace & Co., Dewey and Almy Chemical Division; Harvard Cooperative Society; Harvard Trust Company; Harvard University; Hotel Continental; International Business Machines Corporation; Arthur D. Little, Inc.; Massachusetts Institute of Technology; NEGEA Service Corporation; New England Telephone & Telegraph Company; Polaroid Corporation; Porter Chevrolet, Inc.; Sears, Roebuck & Co.; Sheraton-Commander Hotel; Simplex Wire & Cable Co.; U B S Chemical Company, Div. of A. E. Staley Manufacturing Co.; James O. Welch Company; A. O. Wilson Structural Co.; F. W. Woolworth Company.

The day following School-Commerce Day the 693 seniors from the two Cambridge high schools wrote essays on School-Commerce Day. From these the Committee, consisting of Chamber President John F. Rich and the presidents of the three service clubs — Exchange, Kiwanis and Rotary — will select four winners. Government bonds for each of the four winners of the essay contest will be donated by the Chamber and the three service clubs— Exchange, Kiwanis and Rotary. Winning essays will appear in a future issue of this magazine.

This cooperative effort by the two Cambridge High Schools, the Mayor's office, the three service clubs, Exchange, Kiwanis and Rotary, the Cambridge Chamber of Commerce, and industry and business, as well as several city departments, was a most successful undertaking. All participants stand to benefit by this effort.

SCHOOL and COMMERCE DAY

sponsored by the
following Cambridge organizations
THE CHAMBER OF COMMERCE
EXCHANGE — KIWANIS
and ROTARY CLUBS
in co-operation with
THE CAMBRIDGE
SCHOOL DEPARTMENT

THURSDAY, OCTOBER 24
NINETEEN HUNDRED SIXTY-THREE

Program

LESLIE L. CLEVELAND AUDITORIUM
CAMBRIDGE HIGH AND LATIN SCHOOL

CHAIRMAN
JOHN F. RICH, *President of the Cambridge Chamber of Commerce*

SPEAKERS
JOHN M. TOBIN, *Superintendent of Schools*
HONORABLE EDWARD A. CRANE, *Mayor of Cambridge*
ANITA E. HERMAN, *President of the National Honor Society, Cambridge High and Latin School*
PAUL GIBSON, *President of the Senior Class, Rindge Technical School*

GUESTS
JOHN J. CURRY, *City Manager of Cambridge*

CHARLES D. KEEFE, *President of the Exchange Club of Cambridge*
FRANCIS T. McCABE, *President of the Kiwanis Club of Cambridge*
CHARLES W. VAUGHAN, *President of the Rotary Club of Cambridge*

JOHN J. SHEEHAN, *Headmaster, Cambridge High and Latin School*
ROBERT R. SWEENEY, *Headmaster, Rindge Technical School*
RUTH F. BOLAND, *Director of the Bureau of Pupil Services*

Comments from
Industrialists and Educators

The PRESIDENT of the CHAMBER OF COMMERCE

"Mistakes are inevitable when occupational decisions are the result of impulse and misconception. Not only that; they are costly.

"School and Commerce Day which enables student to approach the field of work with thoughtful, constructive attitudes buttressed by accurate and up-to-date information has our unqualified endorsement."

John F. Rich

The MAYOR

"As the Mayor of Cambridge I am strongly in favor of this splendid vocational program wherein Industry and Education unite as partners and cooperate to meet the employment needs of our young people.

"School and Commerce Day, therefore, has my heartiest endorsement since it brings together all our major community groups in the democratic quest for equality of job opportunity."

Edward A. Crane

The CITY MANAGER

"Cambridge is, fortunately, a city of diversification which contains representatives of just about every profession and vocation.

"Cambridge children have the chance to take advantage of our wonderful educational opportunities in grammar and high schools, unmatched by any other city in the world.

"All this can be had at very little cost, can be enjoyable and profitable. Every pupil should try to correlate what he intends to work at in his adult life with the businesses and professions extant in our city."

John J. Curry

The SUPERINTENDENT of SCHOOLS

"The mutual interest of school and industry in our junior citizens is well reflected in this undertaking. The spirit of co-operation so apparent here augurs well not only for the future of our students but also for the continuing growth of our community. I congratulate all who have made this meeting possible."

John M. Tobin

The PRESIDENT of the EXCHANGE CLUB

"The future and growth of business in Cambridge will to a great extent depend upon the incentive and encouragement offered to the youth of our schools today.

"We heartily support School Commerce Day Program because it presents to our young people a practical, graphic insight into business and industry in their home community.

"It also enables them to set up achievable goals and to make job decision consistent with their individual interests and capabilities."

Charles D. Keefe

The PRESIDENT of the KIWANIS CLUB

"School and Commerce Day is an excellent piece of work because it eliminates the trial and error method of job choice. For this reason and because it demonstrates to our high school boys and girls our great faith and deep interest in them we support its aims and objectives without reservation."

Francis T. McCabe

The PRESIDENT of the ROTARY CLUB

"Cambridge is a wonderful place in which to live and work. Our schools and colleges are the best, and our commerce and industry are among the most advanced. By showing Cambridge high school graduates its commerce and industry at work, and by disclosing the great variety of unlimited opportunities available, this program assures them that the right jobs await. And it assures our city a continuous source of young people to grow and prosper with it."

Charles W. Vaughan

Participating Concerns

American Biltrite Rubber Company,
Boston Woven Hose & Rubber Division
B. B. Chemical Company
Baird-Atomic, Inc.
The Blanchard Machine Co.
Cabot Corporation
Cambridge Association of Insurance Agents
Cambridge Chronicle-Sun
Cambridge City Hospital
Cambridge Electric Light Company

Cambridge Mental Health Association
Cambridge Police Department
Cambridge Trust Company
Cambridgeport Savings Bank
Carr Fastener Company,
Div. United-Carr Fastener Corp.
County Bank and Trust Company
The Cuneo Press of New England, Inc.
The Eddy-Rucker-Nickels Company
W. R. Grace & Co.,
Dewey and Almy Chemical Division
Harvard Cooperative Society
Harvard Trust Company
Harvard University
Hotel Continental
Massachusetts Institute of Technology
International Business Machines Corp.
Arthur D. Little, Inc.
NEGEA Service Corporation
New England Telephone & Telegraph Company
Polaroid Corporation
Porter Chevrolet, Inc.
Sears, Roebuck and Co.
Sheraton-Commander Hotel
Simplex Wire & Cable Co.
U B S Chemical Company, Div. of
A. E. Staley Manufacturing Co.
James O. Welch Company
A. O. Wilson Structural Co.
F. W. Woolworth Company

GENERAL COMMITTEE

John F. Rich, *Chairman*

Ruth F. Boland
Charles D. Keefe
William J. Kelleher
Francis T. McCabe
Edmond J. Murphy
Frank H. Townsend
Charles W. Vaughan

CAMBRIDGE SCHOOL COMMITTEE

His Honor, MAYOR EDWARD A. CRANE, *Chairman*
ANTHONY GALLUCCIO, *Vice Chairman*
MRS. PAUL KURT ACKERMANN
JAMES F. FITZGERALD, *Esq.*
JOSEPH E. MAYNARD
GEORGE F. OLESEN, JR.
GUSTAVE M. SOLOMONS
JOHN M. TOBIN, *Superintendent of Schools*

Acknowledgment

The General Committee wishes to express its deep appreciation to all who have contributed to the success of this program; in particular, the cooperating firms, the Rindge printing classes, teacher escorts, tour guides, and all those who willingly gave their time and efforts to make this program possible.

OFFICE OF THE
SUPERINTENDENT OF SCHOOLS
1700 Cambridge Street
Cambridge 38, Massachusetts
JOHN M. TOBIN, *Superintendent*

January 4, 1963

Announcement

SUBJECT: **Elementary Science Workshop. February 4-15, 1963. 2:00 P.M. to 5:00 P.M. — Monday through Thursday.**

Workshop to be conducted by Miss Margaret Fuller, Science Consultant for D. C. Heath & Co.

We shall use the Auditorium and the Cafeteria of the Morse School.

Each afternoon we shall have approximately 50 teachers in attendance scheduled on basis of all teachers from one school Kindergarten through Grade 8 on the same day. (Suggested schedule is attached.)

This will require the dismissal of all pupils from each school at :30 P.M. on the day the faculty of that school will attend the Workshop.

Will require the assistance of the Science teachers from the new schools on each of the days the Workshop is scheduled.

Daily Program:

a. A science film with Dr. Herman Schneider (35 minutes) — 2:00 P.M.-2.35 P.M.
b. A talk by Miss Margaret Fuller (20 minutes) — 2:35 P.M.-2:55 P.M.
c. Coffee break (15 minutes) — 2:55 P.M. to 3:10 P.M.
d. Workshop where each teacher will complete at least one experiment in physical science. (1 hour, 35 minutes). 3:10 P.M.-4:45 P.M.
e. A summary and question period. (15 minutes). 4:45 P.M.-5:00 P.M.

Miss Margaret Fuller will supply all the materials.

Materials employed will be largely inexpensive and readily available.

Items to be handled:

1. Notification to each school that all teaching personnel will be expected to attend.
2. Notification of parents of each school of early dismissal date for that school.
3. Arrangements for early dismissal of Science teachers in Harington, Fitzgerald and Peabody Schools.
4. Arrangements for custodian at Morse School until 5:30 P.M. each day.

PROPOSED SCHEDULE FOR SCIENCE WORKSHOP
at Morse School from 2:00 P.M. to 5:00 P.M.
between February 4 and 15, 1963

Date	*School*	*Number of Personnel*	
Monday, February 4	Morse	22	
Monday, February 4	Webster	22	44
Tuesday, February 5	Roberts	32	
Tuesday, February 5	Fletcher	14	46
Wednesday, February 6	Abraham Lincoln	14	
Wednesday, February 6	Agassiz	18	
Wednesday, February 6	Peabody	16	48
Thursday, February 7	Russell	21	
Thursday, February 7	Haggerty	14	35
Friday, February 8 (Make-up if day cancelled by inclement weather.)			
Monday, February 11	M. E. Fitzgerald	31	
Monday, February 11	Putnam	15	46
Tuesday, February 12	Charles G. Harrington	45	45
Wednesday, February 13	Longfellow	36	36
Thursday, February 14	Houghton	25	
Thursday, February 14	Thorndike	13	38
Friday, February 15 (Make-up if day cancelled by inclement weather.)			

DAVID E. HOCKMAN, *Master*, Morse School,
Chairman, Elementary Science Committee.

JOHN M. TOBIN,
Superintendent of Schools

JMT/jrm

Five CHLS Students Learning About Careers in Mental Health

Five CHLS students, four juniors and one senior, are having an unusual experience. They are part of the first group of students from Cambridge, Brookline and Winchester to take part in the Careers in Mental Health Project, established by the Massachusetts Association for Mental Health and the Massachusetts Mental Health Centre, for the purpose of giving young people, their parents and indirectly their communities, an enlightened understanding of the mental health professions and modern treatment facilities.

The Cambridge students include Anne Gaudet, 165 Upland rd., 11th grade; Richard Hockman, 57 Reservoir st., 12th grade; Joyce Landon, 165 Fayerweather st., Judith Salvi, 21 Chauncy st., and Jane Specter, 53 Lee st., all 11th graders.

More than 40 people in the Mass. Mental Health Center, the school systems of the communities providing the students, and the Massachusetts Association for Mental Health and its affiliates, combined to plan the program in which the students are assigned individually to a professional person on the staff of the Mental Health Center for one afternoon a week for the school year.

The Cambridge Mental Health Association, as one of the affiliates of the State Association, has been represented in this planning by Mrs. Jere H. Dykema, chairman of the School Liaison Committee, assisted by Mrs. Paul K. Ackermann, school committee member; Mrs. Raymond A. Bauer, vice-president of the Cambridge Association; Mrs. Francis Hannon; Mrs. William H. Mulcahy, master of the Haggerty School; and Mrs. Robert Treat.

Working on the plans from the Latin School were Headmaster John Sheehan, Miss Katherine Whalen, Junior Girls Counselor, and Frank Frisoli, Senior Boys Counselor

Full support of the Project was given by Supt. of Schools John M. Tobin, and Dr. Ruth Boland, Director of Pupil Services.

Professional Supervisor of the Project is Mrs. Sally Mack who emphasizes the fact that this is a teaching rather than a service project. To learn how the nurse or social worker or occupational therapist, the psychologist or psychiatrist cares for the mentally ill patient, the student will spend one or two hours on the ward with his supervisor each week, and one hour in a student group meeting led by Dr. William Barnum, a staff psychiatrist at the Mental Health Center.

Most of the students will rotate at six-week intervals through the various departments, services and clinics in the Center. Two will remain throughout the year in the Children's Unit.

The New Elementary Science Curriclum

Sputnik spun into orbit around the earth and echoes of its passing affected the lives of each of us. In the teaching of science, one echo reached the level of a sonic boom, but the effects were much more permanent.

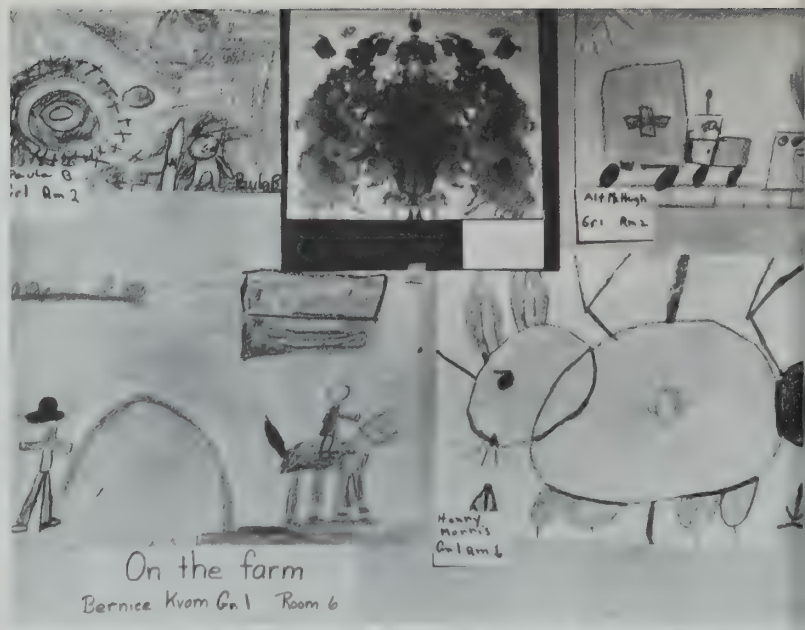
Our schools have included science in the curriculum for many years. The most recent curriculum revision at the elementary level had taken place in 1947. As part of the revision, the planning of space and equipment for new schools had included a special science room. Since the completion of four new schools, teachers whose major preparation has been in the area of science have been assigned to three of these schools, while, in the fourth, pupil enrollment permitted specialized instruction only at the seventh and eighth grade levels.

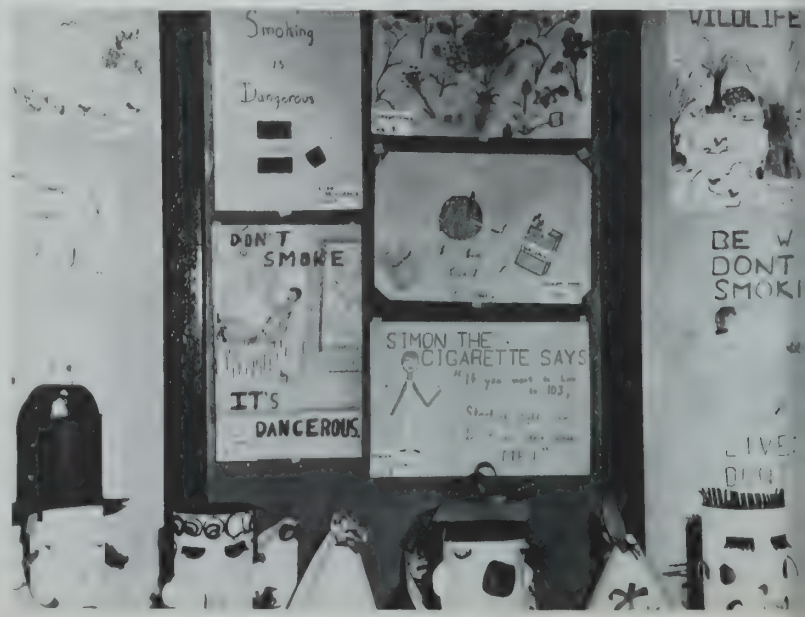
Early in 1958 Superintendent of Schools John M. Tobin appointed a committee of elementary school administrators and teachers to update the science curriculum and equipment. Meeting one afternoon a week during the school year and performing individual projects during leisure time at home, the members proceeded first with research as to content and grade placement suggested by authorities in the area. Eleven major categories were chosen: animals, plants, conservation, exploring the earth, exploring the sky, weather and climate, changes around us, electricity and magnetism, machines, the human body, and your future in science.

Within each category of science the selection and development of topics were guided by these fundamental considerations:

1. Would the area proposed be useful to the teacher in the average classroom situation?
2. Would the topics broaden the student's mastery of the basic facts of science, and of the concepts involved in each category?
3. What effect would the prescribed areas have on learning, on study habits, on attitudes, and on every-day living experiences?
4. Which teacher and child reference books, films, and filmstrips should be listed after each topic?

By June 1960 the tentative outline for grades one through six was ready for the printer. Distribution to classroom teachers was completed in January of 1961. Meetings were held with the classroom teachers to explain the revisions. The tentative outline provided space





for each teacher to enter corrections and supplements. After one year of use, these notations would be tabulated and a revised outline published.

Once subject matter content and teaching techniques had been decided, the next step was the preparation of a basic list of equipment necessary for classroom demonstrations and experiments. Accordingly, a survey was made which indicated the materials then on hand in each school. A request was prepared and submitted which would authorize the purchase of needed equipment under provisions of Title III of the National Defense Education Act. Approval, purchase, and distribution to each school was completed by October, 1962. Shortly thereafter the Federal Government reimbursed the Cambridge School Department for one half the cost of the equipment.

In December, 1961 and January, 1962, a series of meetings were held by the science committee with teachers from each school. Sessions were held after the regular school sessions. Teachers were grouped by grades taught, and the suitability and adequacy of the tentative outline was discussed. It was at these sessions that areas of possible difficulty were pinpointed and either clarified or eliminated.

In March of 1962 each school returned to the committee a copy of the original outline with the criticism of the teachers in that school.

With these suggestions the science committee began a revision of the original outline. Simultaneously, all references were brought up to date. The revised outline will be ready for adoption in September, 1963.

In the meantime, work had proceeded on the outine for grades seven and eight. Completion and publication of the outline took place in November of 1962.

During the month of February, 1963, all elementary teachers attended a science workshop during after-school hours. One of the major textbook publishers supplied his elementary science consultant and the required workshop materials for experiments and demonstrations. Instruction in modern techniques in the teaching of science was reviewed and each teacher completed experiments applicable to his grade. Emphasis was placed on the physical sciences.

The completion of a new curriculum in science has been one measure of the progress of our elementary schools in the area of science. Similar projects are underway in Arithmetic, the Language Arts, Social Studies, Study Skills, Health, Music, Physical Education, Home Economics, and Household Arts.

The members of the elementary science committee especially, and the classroom teachers have devoted considerable time and effort to this undertaking. Theirs has been a gracious acceptance and effective completion of an added obligation which will be of significant benefit to the teachers and the pupils of our schools. Members of the other committees have assumed no less an obligation.

No ending can be written to this article. Science — and science teaching — is ever changing in content; in techniques of instruction; in materials useful for presentations. Plans are underway to equip as science classrooms one room in each of our older schools and to assign special teachers as funds permit. Thus, this article can be adjudged as a status report.

Mr. David E. Hockman, *Master,* Morse School

LITTLETOWNUSA

THE NATION

High School PSSC Physics

There can be no doubt that the physical sciences should occupy a prominent position in the educational program of secondary school students throughout the country. The only question one might logically ask is "What kind of course should it be?"

As early as 1850 a course in physics with a strong emphasis on Newtonian mechanics was commonly offered as part of the college preparatory course. The establishment of the Land Grant colleges, about 1860, added a large number of students, whose education would normally have been terminal at high school graduation, to the list of those for whom a course in secondary school physics might be desirable.

About a hundred years ago, Harvard College announced that it would accept mathematics and physics for admission credit. Accordingly, the college listed forty standard laboratory exercises on which the candidates for admission were to be tested.

Shortly thereafter the growing mechanization of industry and an improved technology brought a demand for technicians with some basic knowledge of the fundamental principles of physical science. The textbook writers met this demand by including practical examples which illustrated and complemented the basic principles. At the turn of the century, a breakthrough on wave propagation theory and quantum mechanics added new concepts, while the development of transportation and communications industries added a flood of practical applications to the course content. As early as 1910, however, complaints began to be heard that teachers and textbooks were poor and laboratory work contrived.

In some localities the overwhelming content of an introductory physics course had been recognized as being far too extensive, and new courses were designed to fit community needs. Some technical high schools for the past twenty-five years have been offering courses in Applied Physics which deal with applications of the principles without historical background or rigorous mathematical treatment. If these courses are offered early in the high school years, a bright student who has no plans for education beyond the high school level may be discovered and reoriented. These courses, however, do not meet the needs of a worthwhile secondary school general education program in physical science.

In the summer of 1955, a Summer Conference of physics teachers, held at Carleton College, concluded that any good first physics course must be concerned with the development and thorough understanding of the following basic principles:

1. Conservation of matter-energy
2. Conservation of momentum
3. Conservation of electric charge
4. Waves
5. Fields
6. Molecular structure
7. Atomic structure

In 1956 the Physical Science Study Committee, consisting of university and secondary school teachers, with Dr. Jerrold R. Zacharias of M.I.T. as Director, undertook the task of developing such an improved physics course for secondary schools. From their work have come textbooks, laboratory experiments and simplified apparatus, films, achievement tests, and supplementary reading materials. Teachers' guides have been developed, and PSSC Institute Programs have been established to familiarize teachers with the course materials and their interrelated use.

The PSSC Program is designed to show students some of the structure of physics and how this was discovered. The Program concentrates on fewer facts than are included in a conventional physics course. Understanding these facts is emphasized; memorizing them is not. Concepts are developed, not just asserted. The laboratory is an important tool in teaching the fundamental ideas of science and how science is built. In the PSSC course, laboratory work is on a par with the textbook, class discussions, and films.

Students start from simple measurements of time and space and end with the study of the wave-mechanical explanation of the internal structure of atoms. As this atomic structure story develops, two essential sub-stories unfold. One is the picture of wave behavior built up through many laboratory experiments with visible waves as part of the study of light; the second sub-story involves the development of Newtonian mechanics with the concepts taught by experimental work in the laboratory. It is here that the ideas of momentum and energy are heavily stressed. Electricity is then treated in such a way as to lead

to the identification of the particles of which atoms are composed. The course ends with the synthesis of wave behavior and particle mechanics in describing the atom.

Nearly two thousand teachers in secondary schools used the PSSC Program in 1961, teaching nearly eighty thousand students. This represented about 20% of United States secondary school students enrolled in physics. For the present school year, figures gathered by Educational Services, Inc., indicate that about three thousand teachers and one hundred twenty-five thousand students are involved in the PSSC Program. In addition, more than one thousand teachers are using some of the course materials — PSSC laboratory apparatus and films — with a conventional physics text book.

More than thirty-five teachers from abroad have attended PSSC Summer Institute Programs. In addition, several countries have requested the dispatch of PSSC staff members for the purpose of organizing workshops for local teachers. The PSSC textbooks are being translated into Spanish and Italian, and negotiations are under way for translations into Hebrew, Japanese, Portuguese, and the Scandinavian languages.

Here in Cambridge, seven high school teachers have participated in PSSC Institute Programs in the teaching of the new physics. Currently, there are four physics classes in operation at Rindge Technical School, and two classes are in operation at Cambridge High and Latin School.

The Science Department Heads of both High Schools have completed Institute Programs, and one physics teacher is presently teaching the PSSC Program to a class of teachers from communities such as Somerville, Belmont, and Medford. Teachers from several private and parochial schools also attend this Institute.

Mr. Harry A. Parris, *Teacher,* Rindge Technical School

Salute

to

Tomorrow's Leaders

presented by

The Rotary Club of Cambridge

Testimonial Luncheon

in honor of

Members of the National Honor Society

Cambridge High and Latin

Louise Adams
Anita Andrade
Janice Campbell
Marie Gaitanis
Margaret Clarke
Virginia Currier
Francis Flett
Elisa Hill
James Karon
Joanne LaBossiere
Eveline Lee
Constantina Leonardos
Theresa Lima
Peter Pardo de Zela
Marlene Pati
Maryann Pizzuto
Esther Purpel
Chandra Salvi
Donna Simons
Hilda Souza
Nancy Vargas
Patricia Vargas
Geraldine Zagarella

Rindge Technical

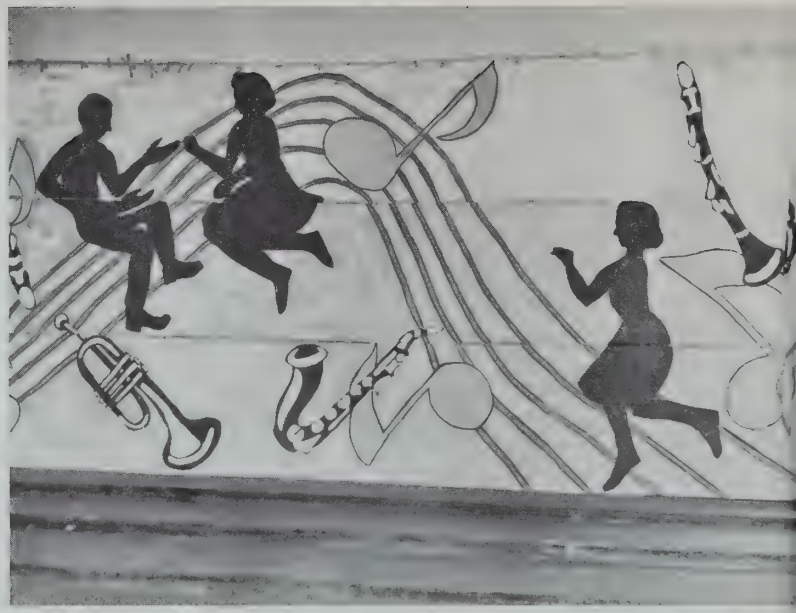
Henry Arsenault
Richard Blouin
Lawrence Ciccia
Richard Colman
Robert DeFrancisco
Timothy Johnson
Robert Lencewicz
Lawrence Scott
Norman Sabbey
Anthony Sarantakis

PROGRAM

Song — "God Bless America"
Prayer — Albert O. Wilson, Jr.
Lunch
John H. Dyer, President of Cambridge Rotary
Presentation of Cambridge Members of National Honor Society
Edward A. Crane, Mayor, The City of Cambridge

Honored Guests

Mrs. Mary I. Bunting, President
Radcliffe College
Honorable Edward A. Crane
Mayor of the City of Cambridge
Mr. John J. Curry
City Manager of the City of Cambridge
Mr. Henry O. Delaney, Assistant Headmaster
The High and Latin School
Mr. Frank J. Frisoli, Faculty Adviser
The High and Latin School
Miss Olive Lynch, Faculty Adviser
The High and Latin School
Mr. William Mahoney, Faculty Adviser
Rindge Technical High School
Mr. Walter Milne
Assistant to the President of M.I.T.
Mr. Edmond J. Murphy, Assistant Headmaster
The High and Latin School
Dr. Don A. Orton, President
Lesley College
Mr. John J. Sheehan, Headmaster
The High and Latin School
Dr. Theodore R. Sizer, Director,
Master of Arts In Teaching Program,
Harvard University
Mr. Robert R. Sweeney, Headmaster
Rindge Technical High School
Mr. John M. Tobin
Superintendent of Schools
for the City of Cambridge



Statistical Tables

AGES

DISTRIBUTION OF PUPILS BY AGE AND GRADE ON OCTOBER 1, 1963

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Over 21	Totals
Kdgn.	M	256	368	8	1																633
	F	242	341	5	1																589
I	M		149	325	56																530
	F		167	277	32	5	1														482
II	M			111	267	97	9														484
	F			144	248	45	9	—	1												447
III	M				100	248	87	25	12												472
	F				126	223	55	9	1	—	1										415
IV	M					76	198	77	31	6	1										389
	F					109	214	51	18	3	2										397
V	M					1	86	193	89	33	2										404
	F						107	178	56	16	5										362
VI	M						1	72	178	75	39	7	—	1							373
	F						—	110	197	41	22	4	1	—							375
VII	M								89	192	82	32	5								400
	F								92	181	58	16									347
VIII	M								1	75	181	71	23	6							357
	F									96	166	60	21	3							346
IX	M										106	220	100	20	7	2				1	456
	F									1	131	198	87	22	2	—				—	441
X	M										1	133	219	113	27	2	2				497
	F										1	119	197	64	20	5					406
XI	M												106	228	71	17	2	1	1		426
	F											1	108	165	43	8					325
XII	M													125	149	68	18	1	1	1	363
	F													131	155	36	12	2			336
P.G.	M														5	6	3			2	16
	F														5	6	2	—	1	—	14
Voc. Schs.	M										1	19	52	20	5	2	—	—	1		100
	F											6	17	6	3						32
Ungraded	M			3	8	13	14	23	16	17	23	13	14	1							145
	F			1	5	5	6	12	9	13	13	11	5	1	1						82
Totals	M	256	517	447	432	435	395	390	416	398	436	495	519	514	264	97	25	2	3	4	6,045
	F	242	508	427	412	387	392	360	374	351	399	415	436	392	229	55	14	2	1	—	5,396

Grand Total 11,441

AGE GROUPS

5 years or over and under 7
Boys 964 Girls 935 Total 1,899

7 years or over and under 16
Boys 3,916 Girls 3,526 Total 7,442

DISTRIBUTION BY GRADE

Range: Kindergarten through Grade 11

Grade	K	1	2	3	4	5	6	7	8	9	10	11	Special	Jr. Prev.	Total
Boys	3	10	5	6	12	11	6	5	2	10	4	1	2	3	80
Girls	3	2	0	5	1	2	0	0	1	3	0	1	0	0	18
Total	6	12	5	11	13	13	6	5	3	13	4	2	2	3	98

DISTRIBUTION BY CHRONOLOGICAL AGE

Range: 4 years to 17 years

C.A.	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
Boys	2	2	4	5	5	6	13	9	9	7	6	6	5	1	80
Girls	0	2	2	1	3	2	2	1	0	1	1	2	1	0	18
Total	2	4	6	6	8	8	15	10	9	8	7	8	6	1	98

1963 Class Statistics

ENROLLMENT CHART BY GRADES

Grade	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
I	1,079	1,017	1,014	998	1,046	1,066	1,086	1,102	1,064	1,012
II	969	891	871	867	886	877	904	894	943	931
III	921	917	877	821	817	848	851	877	850	887
IV	751	878	896	838	797	822	808	812	809	786
V	747	701	852	858	838	763	822	799	784	766
VI	759	710	660	831	836	817	759	809	769	748
VII	749	707	693	662	791	804	798	746	757	747
VIII	626	679	667	655	635	736	740	720	694	703
IX	790	790	933	796	772	693	887	981	1,000	897
X	698	640	722	805	775	742	661	852	888	903
XI	666	567	477	639	749	724	724	573	727	751
XII	550	559	505	466	549	618	606	541	521	699
P.G.	14	8	29	23	21	15	17	12	20	30
Ungraded					148	168	126	196	195	227

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.	Total
High and Latin	701	654	531	506	20	2,412
Rindge	196	248	219	192	10	865
Boys' Vocational	Ungraded					100
Girls' Vocational	Ungraded					32

October 1, 1963

NUMBER OF PUPILS in the GRAMMAR SCHOOLS

December, 1963

Grade	*Boys*	*Girls*	*Total*
Eighth	360	340	700
Seventh	384	355	739
Sixth	378	357	735
Fifth	397	366	763
Fourth	396	390	786
Total	1915	1808	3723
Ungraded	149	92	241
Total	2064	1900	3964

NUMBER OF PUPILS in the PRIMARY SCHOOLS

December, 1963

Grade	*Boys*	*Girls*	*Total*
Third	459	411	870
Second	479	441	920
First	514	485	999
Total	1452	1337	2789

NUMBER OF PUPILS in the KINDERGARTEN

December, 1963

Boys	623
Girls	596
Total	1219

BUREAU OF PUPIL SERVICES
1962-1963

I	TESTING PROGRAM	
	1. Group Tests	
	Reading Readiness (Grade I)	1097
	Intelligence Tests	
	(Grades 2, 5, 8)	2427
	(Grades 11, 12)	728
	Miscellaneous pupils	344
	Achievement Tests	
	(Grades 3, 4, 5, 6, 7, 8)	4638
	(Grades 9, 10)	932
	Total	10,166
	2. Individual Tests	
	Intelligence Tests	406
	Achievement Tests	436
	Projective Tests	441
	Others	25
	Total	1,308
II	PSYCHIATRIC CLINIC	
	3. Pupils referred for individual study	465
	A. *Reasons for Referral*	
	1. Learning problems	62.1%
	2. Emotional	5.6%
	3. Learning and Emotional	2.2%
	4. Behavior	5.2%
	5. Behavior and Learning	2.8%
	6. Evaluation	13.5%
	7. Re-evaluation	8.6%
	B. *Recommendation after Study*	
	1. School placement	
	a. Special, Health, etc.	23.0%
	b. Retention in grade	17.2%
	2. School Psychiatrist	15.3%
	3. Remedial instruction	44.5%
	4. Pupils referred to Psychiatrist	98
	Range: Kdg. through grade 11	
	Age: 4 years through 17 years	
	Boys: 80 Girls: 18 Total: 98	
	New Cases: Boys: 56 Girls: 15 Total: 71	
	Continued Cases: Boys: 24 Girls: 3 Total: 27	
	Number of Sessions with Psychiatrist	
	Pupils	127
	Parents	105
	Total	232
	Staff conferences with Psychiatrist	79
	Distribution of Cases by Grade (see chart)	

CAMBRIDGE HIGH AND LATIN SCHOOL
GRADUATE FOLLOW-UP STUDY

Class of 1963

			Per Cent
Number of Graduates		368	
Questionnaires Sent		368	
Number of Responses		366	99.45
Further Education		136	36.97
Colleges and Universities		86	
Technical Institutes		4	
Junior College		4	
Prep Schools		11	
Business Schools		12	
Nursing Schools		3	
Religion		1	
Hairdressing		3	
Post Graduates		10	
Miscellaneous schools		2	
	Total	136	
Employed (full time)		196	53.26
Employed (part time)		8	2.17
Armed Services		13	3.53
Married (at home)		2	.54
Convalescing		1	.27
Unemployed		10	2.72
Moved (address unknown)		2	.54
	Total	368	100.00%

CAMBRIDGE HIGH AND LATIN SCHOOL
: DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities		Earlham College, Indiana	1
Beloit College, Wisconsin	1	Emmanuel	1
Bentley College of Accounting and Finance	2	Framingham State Teachers	1
Boston College	6	Greensboro College, No. Carolina	1
Boston State College	7	Harvard College	4
Boston University	19	Howard University, Washington, D. C.	1
Brandeis	1	Mass. College of Art	2
Bridgewater State Teachers	1	Mass. Institute of Technology	1
Merrimack College	1	New Prep	7
Michigan State University	1	Cambridge Academy	1
Northeastern	10	Manter Hall	1
Penn. State University	1	Newman Preparatory	1
Plymouth Teachers College, N. H.	1	Chauncy Hall	1
Radcliffe	3	*Nursing Schools*	
Salem State Teachers	1	Mt. Auburn Hospital	2
Simmons College	1	Mary Hitchcock Memorial	1
Suffolk University	1	*Hairdressing Schools*	
Swarthmore College	1	Wilfred Academy	1
St. Francis Xavier Univ., Canada	1	Den School of Beauty	1
Tufts University	3	Mansfield Beauty Academy	1
Union College, Schenectady, N. Y.	1	*Business Schools*	
University of New Mexico	1	Stenotype Ins. of Boston	1
University of California	1	Chandler School for Women	4
University of Miami	1	Wyndham Secretarial	2
University of Mass.	6	Hickox	1
West Point	1	Cambridge School of Business	1
West Va. State College	1	Bryant and Stratton	1
Technical Institutes		Newbury School of Business	1
Lowell Technological	2	*Miscellaneous Schools*	
Northeast Institute of Industrial Technology	1	Cardinal O'Connell Seminary	1
Wentworth Institute	1	Boston Conservatory of Music	1
Junior Colleges		Northeast School of Broadcasting	1
Chamberlayne Jr. College	3	Plus School of Business	1
Mass. Bay Community College	1	*Post Graduates*	
Prep Schools		Rindge	1
		C.H.L.S.	9

EMPLOYED

			Per Cent
Obtained Jobs Through School Placement Office		74	37.75
Obtained Jobs from Other Sources		122	62.25
Employed			
College Course	18		
Commercial Course	176		
Home Economics Course	2		

Types of Employment

Auto Mechanic	1
Bank Teller	1
Billing Machine Operator	1
Bookkeeper	7
Bookkeeping Machine	1
Cashier	2
Coder	1
Clerical	22
Customer Service	1
Credit Correspondent	1
Counter Waiter	2
Credit Reporting	1
Comptometer Operator	2
Dance Instructor	1
Dispatcher	3
Factory Work	7
General Office	31
I B M Operator	2
General Helper	2
Filing	1
I B M Key Punch	2
Gas Station Attendant	3
Kitchen Work (Restaurant)	1
Laborer	1
Legal Secretary	3
Library Assistant	1
Mail Clerk	1
Messenger	2
Meat Packing	1
Laboratory Assistant	1
Nurses Aide	1
Photographic Developing	1
Parking Cars	1
Payroll Clerk	1
Receptionist	1
Railroad Yard Clerk	1
Salesman	3
Secretary	22
Stock and Inventory Clerk	2
Salesgirl	3
Switchboard	2
Stenographer	6
Service Representative	1
Shipping Department	4
Teletype Operator	2
Telephone Operator	8
Typist	29
Unknown	1
Waitress	1

Employers of 1963 Graduates

American Fire Loyalty Group Ins.	1
Andrew Dutton Co.	1
American Steel and Aluminum Corp.	1
Arlington Five Cents Savings Bank	1
Anderson Engineers	1
Adcom, Inc.	1
Bradford Insurance Co.	1
Broadway Market	1
Brigham's	1
Baird-Atomic	1
Boston & Maine Railroad	1
Bradlee's	2
BB Chemical Division	1
Boston Woven Hose	1
Baikar Assoc. Inc.	1
Bell Telephone	1
Benda Products	1
Cambridge Trust Company	1
Cambridge Gas Co.	3
City of Cambridge	6
College Seal & Crest	1
Crimson Cigar Co.	2
Coca-Cola Bottling Co.	1
Carter's Ink	1
Cambridge Mfg. Co.	1
Commonwealth of Mass.	1
City Mart Restaurant	1
Columbia Cornice Co.	1
CAMBION	1
Dental Prosthetics	1
Dewey & Almy	1
Eastern Company	3
EMF Electrical Supply	1
Esso Gas Station	1
Electrical Installation Co.	1
Electro-Plating Co.	1
Faling Corp.	1
F. S. Payne Co.	2
Federal Bureau of Investigation	1
Fred Astaire Dance Studio	1
First National Stores	1
First National Bank of Boston	1
F. S. Webster Co.	1
General Express Terminal	1
Gulf Corp.	1
Gilchrist Co.	1
Great Northern Insurance	1
Globe Newspaper	1
Grabhill, Ley & Butterworth	1
Thomas A. Glennon, Atty.	1
Herald-Traveler	1
Harvard Trust Co.	2
H. J. Dowd Co.	1
Harvard College	10
Hartford Accident and Indemnity	2
Hood Rubber	1
Hydes, A. R. Co.	1
Harvard Coop	2
Hayward Garage	1
Hearthstone Insurance	1
Holy Ghost Hospital	1
Hilco Electrical Supply	1
Houghton-Mifflin	1
Industrial Stainless Steel	1
Kaufman Industrial Supply	1
Keyes Scientific Corp.	1
John Hancock Life Insurance	16
Lally Column Co.	1
Lehigh Metal Co.	1
Liberty Mutual Insurance Co.	5
Lechmere Sales	2
Lamb & Ritchie	1
Lester Burdick Inc.	1
Maytag Co.	1
Mass. Life Fund	1
Mass. General Hospital	1
Madison Sportswear	1
Metropolitan Ice Co.	1
Morningstar	1
Mass. Institute of Technology	4
Mirak Chevrolet	1
Makanna, Inc.	1
M. M. Mades	2
Moller's Furniture	1
Merchant's Reporting Service	2
Monk's Laundry	1
Middlesex County	1
Metropolitan Pipe & Supply Co.	1
Merit Gas Station	1
Negea Service Corp.	1
New England Mutual Insurance Co.	1
New England Telephone	20
New England Book Binding	1
Napa Warehouse	1
New England Fire Ins. Rating	1
National Orange Mutual Ins.	1
National Shawmut Bank of Boston	1
Polaroid	1
Prudential Insurance Co.	2
Peck & Peck	1
W. T. Phelan & Co.	1
Radcliffe	1
Revelation Bra	1
Royal Insurance	1
Richards Co.	1
Riteway Cleaners	1
Rex Lumber Co.	1
Dr. James E. Rockett, D.S.C.	1
Rubber Worker's Union	1
Sperry and Hutchinson Co.	2
Star Market	1
Storer, Samon and Lund Co.	1
Sears Roebuck Co.	6
Symmes Hospital	1
Signet Club Plan	1
Schrafft's Restaurant	1
Unknown	1
Woolworth Co.	2
Westinghouse Broadcasting Co.	1
Western Union	1

ANALYSIS OF GRADUATES — Class of 1963

Special Study by Course

			Per Cent
Graduates from College Course		137	37.23
College	86		
Technical Institutes	4		
Prep Schools	11		
Religion	1		
Business Schools	2		
Nursing	3		
Junior College	2		
Armed Services	3		
Post Graduates (CHLS)	5		
Employed (full time)	18		
Employed (part time)	2		
Graduates from Commercial Course		229	62.23
Junior College	2		
Business Schools	9		
Miscellaneous Schools	3		
Married (at home)	2		
Convalescing	1		
Hairdressing Schools	3		
Post Graduates	5		
Employed (full time)	176		
Employed (part time)	6		
Unemployed	10		
Armed Services	10		
Moved	2		
Graduates from Home Economics Course		2	.54
Employed (full time)	2		

RINDGE GRADUATE FOLLOW-UP STUDY

Class of 1963

		Per Cent
Number of Graduates	126	
Questionnaires Sent	126	
Number of Responses	121	96.03
Further Education (full time)	34	26.98
Colleges and Universities	12	
Technical Institutes	7	
Prep Schools	4	
Miscellaneous	2	
Post Graduates (Rindge)	9	
Employed (full time)	64	50.79
Employed (part time)	2	1.59
Armed Services	15	11.91
Unemployed	6	4.76
Moved (address unknown)	5	3.97
Total	368	100.00

RINDGE
DISTRIBUTION OF GRADUATES IN INSTITUTIONS OF LEARNING

Colleges and Universities		12
Boston College	1	
Delaware State College	1	
Eastern Nazarene College	1	
Harvard College	1	
Morgan State, Md.	1	
Northeastern University	6	
Tufts University	1	
Technical Institutes		7
Northeast Ins. of Industrial Technology	5	
Wentworth Institute	2	
Prep Schools		4
New Prep	1	
Newman Prep	2	
Chauncy Hall	1	
Miscellaneous Schools		2
Bryant and Stratton	1	
Radio Electronics and Television School	1	
Post Graduates		
Rindge	9	

EMPLOYMENT DISTRIBUTION OF GRADUTES
RINDGE

Apprentice Machinist	2	Clerical	3
Apprentice Printer	2	Carpenter	1
Apprentice Upholsterer	1	Computer Operator	1
Assistant Civil Engineer	1	Cook	1
Auto Mechanic	2	Draftsman	3
Assistant Mgr. of Restaurant	1	Electronics	3
Assembly	3	Electrical Assembly	2
Carpenter's Helper	1	Factory Work	4
Chimney Repair	1	Gas Station Attendant	2

General Work	1	Produce Manager (store)	1
Inspector (factory)	1	Plating	1
Jr. Athletic Trainer	1	Pharmacy Technician (hospital)	1
Laborer	2	Order Filler	1
Library Assistant	2	Radio Repair	1
Laboratory Assistant	1	Salesman	3
Machine Operator	3	Shipping	2
Mail Clerk	1	Stock Clerk	1
Messenger	1	Truck Driver	1
Packer	3	Welding	2

Employers of 1963 Graduates

Ace Trophy Co.	1	James O. Welch Co.	1
Arrow Armatures	1	J. H. Emerson & Co.	1
Auciello Iron Works	1	Jordan Marsh Co.	1
Acoustic Research	1	Eu Bar, Inc. (bearing)	1
Ames Safety Envelope	1	Lechmere Sales	1
American Oil	1	Macalaster Scientific	1
Beacon Auto Radiator	2	Merit Gas and Oil	1
B. F. Goodrich	1	Mass. Institute of Technology	2
Carr Fastener	1	Master Optics, Inc.	1
City of Boston	1	Mass. Memorial Hospital	1
Crescent Chimney Repair	1	Pine & Baker (furn. finishers)	2
Custom Auto Radio	1	Postar Antique Shop	1
City of Cambridge	1	Pleasant St. Garage, Bemont	1
CEIR, Inc.	1	NAPA Warehouse	1
Cambridge Gas Co.	2	Rotek Instrument Corp.	1
Chicken Delight Restaurant	1	Riverside Press	2
Canvas Steel & Basket	1	Richards Co.	1
Carter's Ink	1	Seminara Rambler	1
Commonwealth of Mass.	1	Spilewski's	1
Central Sq. Hardware	1	Simmons Mattress	1
DOCUMAT	1	Sweetheart Cup Corp.	1
F & G. Hand Made Furniture	1	United Electric Controls	2
Fanny Farmer's	1		
Fry Rooking Co.	1		
General Latex and Chemical	1		
General Plating Co.	1		
General Electric	1		
Harvard University	4		
H. J. Heinz Co.	1		
Holy Ghost Hospital	1		
J. J. Hammett	1		
H. N. Gorin & Leeder Management	1		
Hooper-Holmes Bur Inc.	1		

Special Study of College Course		*Per Cent*
Graduated from College Curriculum	36	28.57
Those attending colleges or other schools:		
College	12	
Technical Institutes	2	
Prep Schools	4	
Post Graduates (Rindge)	3	
Armed Services	1	
Employed (full time)	11	
Employed (part time)	1	
Moved (address unknown)	2	

Annual School Report 1964

the cambridge public schools cambridge massachusetts

1964 Annual School Report

The School Committee

January 1, 1964 to December 31, 1964

Chairman
Mayor Edward A. Crane

Vice Chairman
Gustave M. Solomons
85 Inman Street

Mrs. Paul Kurt Ackermann
41 Gibson Street

Francis H. Duehay
26 Lowell Street

James F. Fitzgerald, Esq.
137 Otis Street

Edward M. McMahon
83 Orchard Street

George F. Olesen, Jr.
8 Fainwood Circle

Regular Meetings of the School Committee are held on the first and third Tuesdays of each month except July and August, at the School Committee Office, 1700 Cambridge Street.

Officers of the Cambridge School Committee

John M. Tobin . . . . . 76 Fresh Pond Lane
Superintendent of Schools

Edward A. Conley . . . . . 14 Ware Street
Assistant Superintendent of Schools

David E. Hockman . . . . . 57 Reservoir Street
Assistant Superintendent of Schools

John R. McCarthy . . . . . 198 Rindge Aven
Secretary to the Superintendent of Schools

Edward J. O'Connell . . . . . 49 Fayette Str
Secretary to the School Committee and Business Agent

William J. Fitzgerald . . . . . 79 Reservoir Str
Chief Custodian

The School Calendar 1964-1965

1ST TERM September 10 - December 23, 1964

2ND TERM January 4 - February 19, 1965

3RD TERM March 1 - April 15, 1965

4TH TERM April 26 - June 25, 1965

1965-1966

1ST TERM September 9 - December 23, 1965

School Holidays

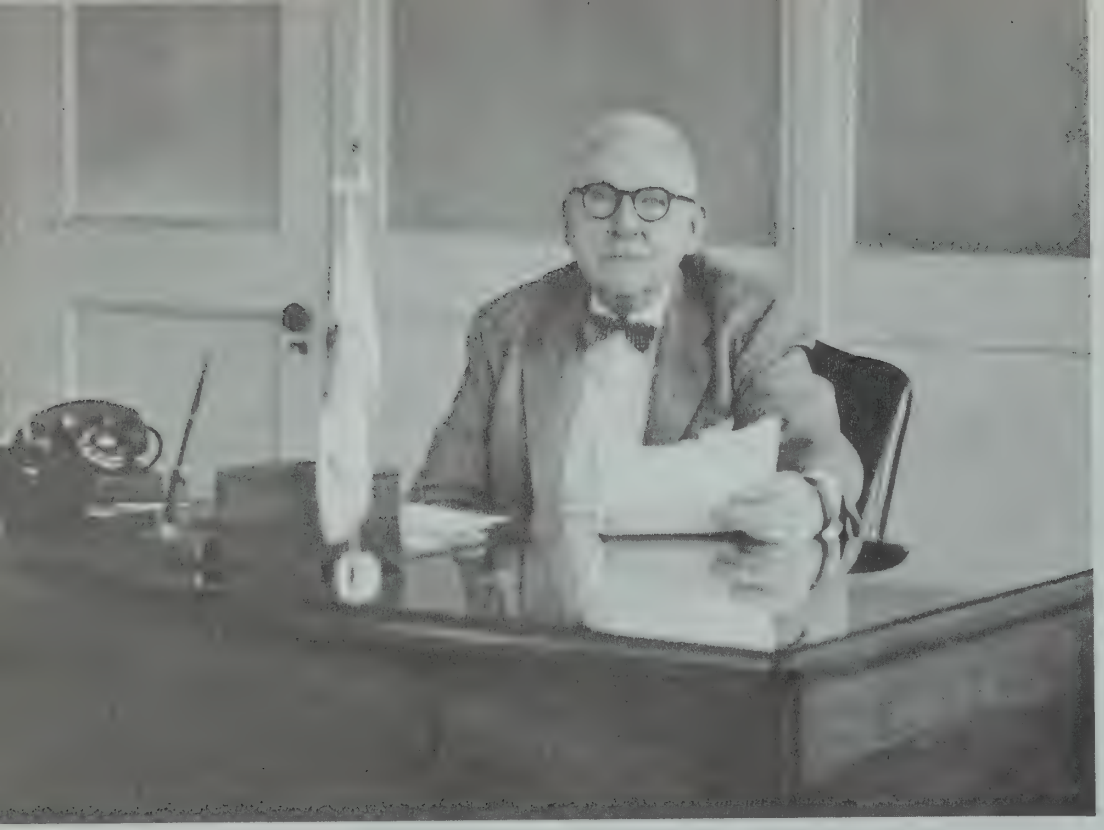
mbus Day; Veterans Day; Thanksgiving Day and the day fol-
Washington's Birthday; Good Friday; Patriots' Day; Memorial
nd the Seventeenth of June. If one of these holidays falls on
, the schools are closed on the following day.

Offices at 1700 Cambridge Street
Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day,
excepting Saturday

Evening Schools

e are two terms of the evening schools. The first term begins
econd Tuesday of October and closes one week previous to the
of the day schools for the Christmas holidays. The second term
n the first Tuesday of January, except when that day falls on
ear's Day, in which case it begins on the Thursday following
ear's Day, and continues for at least twenty-five evenings.
ns and holidays are the same as in the day schools.

A Last Look



John M. Tobin Superintendent of Schools
CAMBRIDGE, MASSACHUSETTS
"The University City"

1964 Annual School Report

of the SUPERINTENDEN
OF SCHOOLS

To the Honorable, the School Committee:

My twentieth annual report, the ninety-seventh in a series of annual eports of the Superintendent of the Cambridge Public Schools and the ne-hundred-twenty-fifth in the printed reports of the School Committee of Cambridge is submitted herewith.

As your Superintendent it is my duty to evaluate critically the present tatus of our schools.

I recall the extensive replacement and rehabilitation of buildings and f equipment that has taken place over the last ten years. I am aware f the long range planning the School Committee, the City Council nd the City Manager have completed so that all schools may provide ne same facilities as our newest.

I remember how the standards which candidates for appointment as achers must meet have risen steadily.

Promotions to all positions above that of teacher are dependent upon ne recommendations of a Board of Examiners chosen from colleges or hools within the metropolitan area. No member of the Cambridge chool Department is authorized to hold membership on these boards. hese rules I recall.

The recently completed revision of the curriculum in Science, Mathematics, the Language Arts, Social Studies, Home Economics, Kindergarten, Art, Music and Physical Education comes to mind.

The workshops; the regular departmental meetings at the secondary hool level; the co-ordination with the Harvard Undergraduate Teachs' Program at the Phillips-Brooks House; the conduct of the summer urses for review and for enrichment; the summer schools at the elementary level conducted in conjunction with Educational Services, Inc. develop new units and materials for the teaching and for teachers of ience; the continuing expansion of the remedial reading and developmental reading programs; the extension of school libraries and science rooms at all levels; the authorized increase in personnel in the guidance and special service fields; the participation with the Center for Research and Development at Harvard University; the planning for the inauguration of two technical courses at grade 13 and 14 at Rindge Technical School for September, 1965; all these are to me symbolic of the progress of our schools.

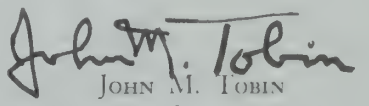
It was, and is, my conviction that our schools have been good schools, are now better than most and will continue to improve their standing in the convictions of our citizens for whom they exist.

But this is my conviction. In all fairness I must employ criteria which are accepted by others and I must apply those standards objectively.

Thus it is that the portion of this annual report which follows these introductory remarks is based upon the ten criteria for excellence which were proposed by the Commissioner of Education for the Commonwealth of Massachusetts. To this section I would direct your attention.

The success of our schools is the result of the dedication of the staff, of the teachers and of our other employees. It is in no less degree the product of the wisdom and of the advice of the Chairman and of the members of the School Committee.

To each I express publicly my sincere thanks and appreciation.



JOHN M. TOBIN
Superintendent of Schools

Criteria for an Evaluation of a Superior School System

A Ten-Point Program

Department of Education, Commonwealth of Massachusetts

(1) Is the development of the intellect and character the school's overriding objective?

—"We who are charged with the responsibility of educating the children see each child as an individual human being, worthy of our profoundest respect, heir to the greatness of our country, and truste of its future."

These words were written by the Superintendent of Schools in hi Annual Report of 1963. Such a philosophy in practice — and it i emphatically practiced — necessarily leads to the development of cha acter for one can only respect the dignity of another when he unde stands the significance of self.

"Education for democratic human relations builds character as i also strengthens our nation."

This statement appeared in the foreword written by the Superin tendent of Schools upon the introduction in 1954 of a Curriculu Guide for Democratic Human Relations for the Cambridge Publi Schools. All our schools are striving constantly to achieve this goa the free man in a free society through respect for others and respec for country.

More recently, the School Committee was in receipt of official a ministrative policy regarding racial imbalance in the Cambridge Publi Schools. The policy enunciated was so clear, sane, and forthright tha it brought forth a commendatory letter from Dr. Owen B. Kierna Massachusetts Commissioner of Education.

The development of the intellect is the role of the school system i training each individual to achieve to the best of his ability that h may utilize his skills limited only by his intelligence, not by his form training. This is our ultimate objective, our reason for existence. Th attainment of this objective must be evaluated by several criteria college admission against college rejection; job placement related intellectual ability; dropout rate versus "holding" power.

Graduate Follow-up Study
College

Cambridge High and Latin School

	1960	*1961*	*1962*	*1963*	*1964*
Graduates	430	379	337	368	511
College	78	75	91	86	115
Further Education	68	49	41	50	73

Rindge Technical School

	1960	1961	1962	1963	1964
duates	141	164	133	126	156
lege	16	19	19	12	19
ther Education	21	19	28	22	25

In summary students from Cambridge High and Latin School and Rindge Technical High School who complete the College Course admitted clear to colleges and universities while still others go on to higher learning. There is, however, a hidden factor not here reflected. How many students who had the capacity for college did not attempt college? No such formal study has yet been undertaken. Informal counseling has, of course, been used with these students but no formal data are available. Hopefully, with the addition of the authorized number of high school counsellors, this study will be made. Results of this investigation could be significant.

It is also important to know what happens to the graduate whom secondary education has trained for immediate employment.

A School Library

Cambridge Latin School

	1960	1961	1962	1963	1964
Employed (full time)	240	213	168	196	252
Employed (part time)	6	7	5	8	13
Armed Services	17	15	14	13	20
Married (at home)	11	3	2	2	9
Unemployed	10	11	11	10	9
Not located		5	4	2	10

Rindge Technical School

	1960	1961	1962	1963	1964
Employed (full time)	64	82	51	64	71
Employed (part time)	6	3	3	2	1
Armed Services	27	31	21	15	24
Unemployed	7	9	7	6	10
Not located	—	1	4	5	5

Percent Unemployed

	1960	1961	1962	1963	1964
Cambridge High and Latin School	2.33	2.90	3.26	2.72	1.76
Rindge Technical School ...	4.96	5.49	5.26	4.76	6.41

The significant fact revealed by the table is that only a very small percentage of the graduates in the last five years were not employed by the fall of the year of graduation.

(2) Is the program geared to all children? The college preparatory group, the vocationally minded, the gifted, the disadvantaged, those handicapped mentally, physically, and emotionally?

Preparation of the college preparatory group has received special attention over a period of many years both in elementary classes and at the high school level. The academically talented grouping which begins at grade six and continues through grade twelve is an important aspect of this program. Homogeneous grouping at high school level in all college preparatory subjects is in effect today as it was over thirty years ago. Advanced classes are available in Mathematics, French and in the sciences.

for speech correction, home teacher, guidance and adjustment coun sellors.

Additional Personnel Recommended

Special Education

	Number of Teachers At Present	Additional Personnel Recommended
Speech (270 pupils)	1	+2

Special Classes

Educable	11	+1
Trainable	1 (Sub.)	+1
Home Teacher	1	+1

Guidance Counselors

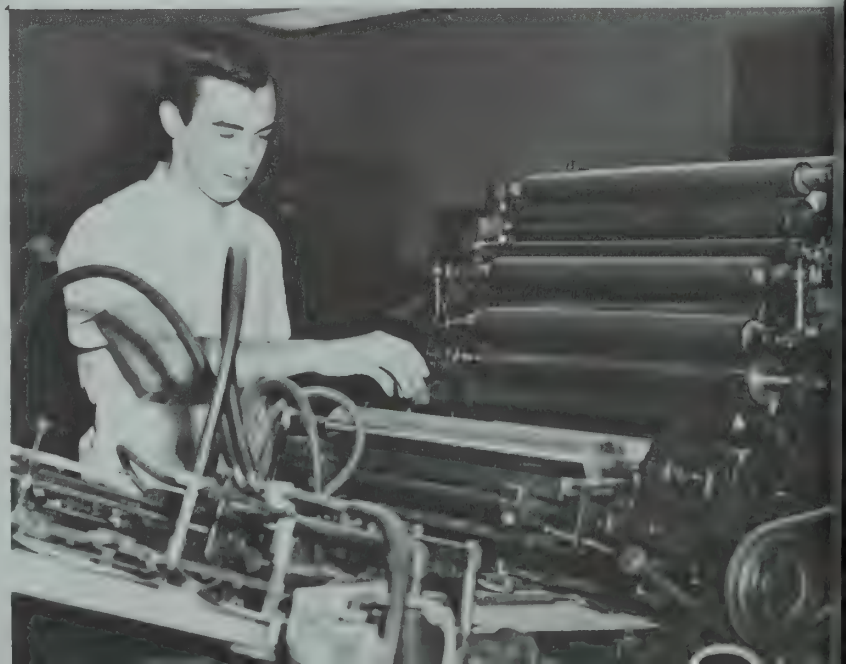
	Number of Teachers At Present	Additional Personnel Recommende
Elementary Counselors (Gr. 7 & 8)	1	+3
Adj. Counselors	1	+2
Secondary Counselors		
Cambridge High &Latin		

For the vocationally minded a consistent requirement is a basic education in the core subjects before placement in our vocational classes for boys and girls.

For the disadvantaged student the school department provides special remedial reading classes, comparatively small class groupings, and extensive audio-visual aids program, and the continuing installation of school libraries.

For the handicapped there are provided special classes, instruction in lip reading and in speech correction, home teachers, classes for the emotionally disturbed, services of psychologists and a psychiatrist, close coordination with the Cambridge Mental Health Center, placement in specialized schools, transportation, guidance and an adjustment counsellor.

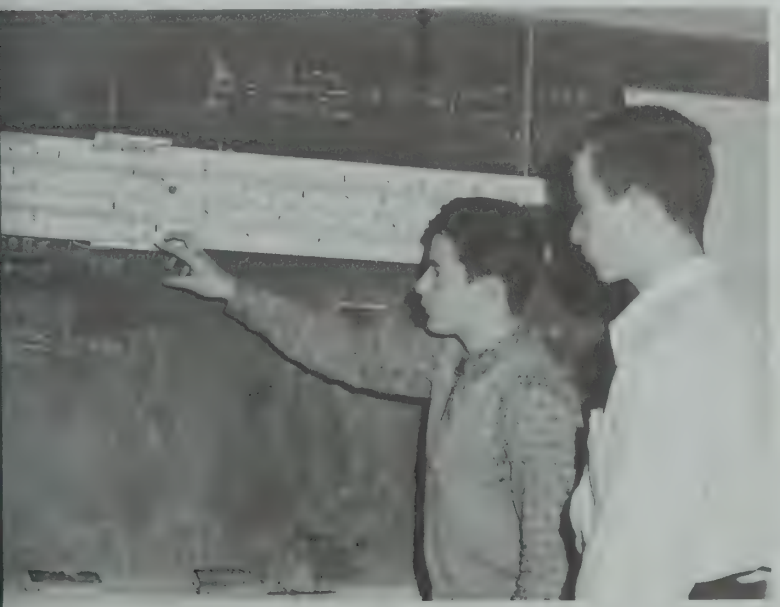
Realizing that, in the latter area, there exists a shortage of personnel which consequently inhibits the attainment of desired results, the School Committee has authorized appointment of additional personnel



Special Services		
ychologists	3	+1

Deans	3	
Assistant Headmasters	3	
Counselors	0	4
Rindge Technical		
Assistant Headmasters	2	
Counselor	0	1
Vocational Schools		
Counselor	0	1

Responsible observers have pointed out that, over the recent years, e school department appears to have devoted a disproportionate nount of personnel and finances to the college preparatory classes. ith this observation in mind, the administration has increased money ocations looking to the improvement of equipment in the business, me economic, and technical courses offered in the high schools.



(3) Does the school teach the 3 R's plus?

One of the policies of the schools to which all can point with pride is an insistence upon teaching the three R's and a resistance to the pressures for what may be termed fads. In reading we have always taught phonics; in mathematics we have never abandoned the teaching of basic facts; in language we have taught grammatical construction and spelling; in the social studies we have instructed in history and in geography. In science we have recently been in the process of moving from the pure textbook approach to the discovery method. But science has always been an integral part of the school's core subjects.

Music and art have never been neglected, and an expansion of personnel and improvement of content is presently being carried out.

Although fads have been resisted, no lapse into self satisfaction has resulted. Committees of administrators and teachers have been revising curricula in all areas of instruction. Pilot programs in modern mathematics and in science are presently in operation. A recent and very promising program in science involves coordinated summer school activities with Educational Services in which sixteen of our elementary school teachers have received intensive in-service training. There is a continued expansion of this cooperative undertaking in our regular classrooms. Within the past two years two workshops have been held for the elementary teachers in science and modern mathematics.

The conversational French program is now in its sixth year of operation. The program begins at grade four and extends through grade eight.

French in the Elementary Schools of Cambridge

Number of Pupils — 3259

Number of Classes — 130

Number of Teachers — 8 (two of whom are substitute teachers)

Grades in which French is Taught — 4, 5, 6, 7, 8

Material Used:

Modern Language Association Guide; ALM Guide (Glastonbury)

"Mes Premières Leçons de Français" (occasional use)

"Causons et Lisons" (Oxford Book) a simple reader

Audio-Lingual Aids & Visual: tapes, records, filmstrips, slides, films

Method Used: Oral-Aural. Little or no English. Extensive use of pictures, objects, dramatizations, etc.

Objectives:

1. To train pupils to speak French correctly and with as much fluency as can be developed in the time allotted.
2. To develop in the pupil the ability to read simple French.
3. To develop in the pupil the ability to write easy French, based on learned material.
4. To encourage in the pupil an interest in foreign languages and foreign cultures, thus making him a better citizen of his own country and of the world.

Number of Pupils in Each Grade Taking French:

Grade 4 — 814
Grade 5 — 745
Grade 6 — 726
Grade 7 — 507
Grade 8 — 467

Finally, Health and Physical Education have consistently been emphasized in our schools. Facilities in all our new schools have included cafeterias with daily hot lunch programs, and modern gymnasia for physical education classes.

It is clear from the foregoing dynamic programming that the Cambridge School Department is not satisfied. Research will continue to produce data which will affect the direction and the technique of instruction and thus produce forces for change in the curricula. It is a simple statement of fact to say that curriculum revision is constantly going on in the School Department.

HUNDREDS TENS ONES
34
40

(4) Are the fiscal and enrollment base broad enough for a multitrack system? The number of students and the amount expended on each vital point.

A rereading of the statement following question No. 2 provides an overview of the wide range of programs offered which substantially cover what is considered a multitrack system.

The adequacy of fiscal policy of our school committees has over a period of many years supported such a multitrack system particularly at the secondary level.

At Cambridge High and Latin School there have been basically college preparatory, a business, and a home economics course. At Rindg Technical School there have been a college preparatory course an generally between ten and twelve technical courses. There exist bot a Boys' and a Girls' Vocational School.

Enrollment at Cambridge High and Latin School has been suff ciently extensive to provide homogeneous grouping in English, Math matics and Modern Languages. It has made feasible courses in th languages of French, Spanish, German, Latin, Italian, Modern Greel and Russian. Only in German, Italian, Modern Greek and Russia has homogeneous grouping been limited because of enrollment.

At Rindge Technical School numbers in the college preparato course have limited homogeneous grouping and confined modern la guage instruction to French. But the proximity of Cambridge High an Latin has overcome this to a large extent. In the technical cours enrollment has allowed great flexibility.

Among the very first in the state will be Rindge Institute for grades 1 and 14, which will be operational in September of 1965.

5) Are there at least 50 professionals for every 1,000 pupils? Is the stem approaching the optimum figure of 70?

In the school year 1964-1965 there are presently 11,174 pupils enlled in the Cambridge Public Schools. This enrollment is served by staff of 532 professionals. Our ratio of professional personnel to udents is therefore the ratio presently recommended in the question ove. Moreover, additional personnel has been planned for in this ar's budget. A projection based on experience indicates that no gnificant ratio change will result adversely.

6) Does the teaching staff reflect professional competency and stability?

Summary (Age Bracket of Teachers)

Age Distribution	*January 1965*	*Professional Staff*
20-25	82	
26-30	67	
31-35	39	
36-40	46	
41-45	42	
46-50	39	
51-55	71	
56-60	80	
61-65	39	
Over 65	27	
	532	

Years of Teaching Experience in Cambridge

One year or less	95	16-20	40
2- 5	104	21-25	24
6-10	66	26-30	58
11-15	50	Over 30	96
	Total 532		

An analysis of the age and experience of the teaching staff indicates a good balance. Youth and vigor are combined with experience and teaching maturity. Moreover, this staff continues to grow. The vast majority of teachers do continue their studies either in colleges and universities or within in-service training programs sponsored by the School Department. Workshops for upper grade teachers and administators have been operational. An art workshop was conducted this spring.

The teaching force represents graduates from numerous colleges and universities. In 1964, for example, 23 teachers with experience came to Cambridge from 13 colleges; 26 provisional teachers from 15 colleges. Some 24 different colleges are represented. This diversification brings a wide spectrum of training experiences to our public school classrooms.

(7) Is there a recognition and acceptance of better practices?

The Cambridge School System is mindful that education does change, that methods do improve, that research does add knowledge. It is still our conviction, however, that the basic objective of the school is to develop and improve communication, both oral and written. Much of our attention and energy is devoted to strengthening our position in these areas even though we believe that this system here is strong.

In the elementary school, classes are kept small. In an average primary grade class the reading group would rarely be more than ten. Related work in language and phonetic drill is daily routine. 53 percent of the school day in grade one is devoted to communication directly; grade two, 47 percent; grade three, 38 percent. Moreover, all but 5 of our schools (Haggerty, Lincoln, Peabody, Thorndike, and Agassiz) have remedial reading teachers who give additional help to children who should be but who are not successful in reading. Concentrated and specialized instruction does aid youngsters in bringing their reading skills to grade level. In these classes modern equipment is combined with currently accepted methodology. The Roberts School is involved in a special reading program with the Language Research Institute under the direction of Miss Christine Gibson whose research has developed some very promising conclusions for improving reading generally. Here the use of Literacy Cards allows individual practice and self corrective growth. This program is now being expanded with additional machines. Much is hoped from this experiment which will be beneficial to the students in all our schools.

Cambridge does not yet have team teaching or an ungraded school. Both are under discussion. This coming summer five of our teachers will be part of the Harvard-Boston Summer School, learning firsthand the experience of both. Others on the staff will be studying or observing the strengths and limitations of both in other courses and other programs.

Some interesting experiments in the teaching of science units have been conducted by the fourteen Cambridge teachers who attended the E.S.I. — Cambridge Summer School last summer. Each of these teachers is bringing current thinking in science to our classrooms. Four of our teachers will be members of the E.S.I. Cambridge Summer School in 1965.

It is clear that there is recognition and acceptance of improved practices, but constant evaluation of classroom results is necessary. Change today is so rapid and research so voluminous that daily observation, study and evaluation are necessary for any school system to improve. (8) Are the facilities and equipment adequate and up-to-date?

The enormous effort in school consolidation and replacement encompassed in the ten year period not quite ended has never been paralleled in Cambridge's history. 1956 witnessed the completion of both the M. E. Fitzgerald and Morse Schools. The magnificent War Memorial followed a year later, an outstanding example of a modern teaching physical education plant. The construction of the Charles G. Harrington School in 1960 was quickly followed by the 1962 dedication of the new Peabody School. 1964 added an Annex to the M. E. Fitzgerald School.

There is appreciation of the need for replacement of other, older schools. Plans are well along toward a realization of such replacements.

Wherever space permits, science rooms and school libraries are being added to the older plants.

Science rooms will have been added by September, 1965 in the Longfellow, Agassiz, Russell, Thorndike, and Webster Schools. Libraries have been or will be established in the Longfellow, Agassiz, Russell, and Abraham Lincoln Schools. If additional space should become available in any school without these facilities they will be installed.

Several of the older schools are to be painted this year, with work already begun in the Roberts School and the Longfellow School. Additional refurbishing is planned for several schools this summer.

The school system also has made and will continue to make a serious effort to keep its equipment modern. During the past year, all cooking rooms received new stoves. Moreover, funds have been budgeted to refurbish the Home Economics rooms at Cambridge High and Latin School this summer.

Machines have been purchased for the Business Department this past year and more will be purchased this year to make certain that the students in business courses will have knowledge of the kind of office machine to which they will be exposed in the world of work.

At Rindge Technical School equipment has also been added. A mathatron was purchased this past year to aid the boys in their knowl-

edge of computers in relation to mathematics and to develop in the students the realization of the machines of the present. A linotype machine has been purchased this year for Rindge. A new press has recently been installed.

Classroom furniture is constantly being replaced. This year the Roberts School will receive new desks. Further, new reading tables were purchased for several primary rooms. Additional furniture will be purchased this year, including chairs and desks for the Business Department at Cambridge High and Latin School.

There is no claim that more does not need to be done. It should be pointed out, however, that as one claims that equipment is up-to-date in this age machines become obsolescent with greater speed than ever before. Planning, research, and careful projection of tomorrow's needs combined with prudent administration have kept the system's equipment, in general, modern. It shall continue to be kept modern.

9) Are sufficient auxiliary services offered such as health, transportation, guidance, and libraries?

Transportation presents no problem for the School Department since ew of our youngsters require bus service. It is felt that this area of oncern is adequately covered.

The School Department is presently involved in augmenting the ecial personnel needed in guidance services. The recommendations ade in the special Cottle-Dunn report, as approved by the School ommittee, are now being met. Currently, the Board of Examiners is udying the records, background, and experience of 36 candidates who ave applied for the position of Assistant Director of Pupil Services. nterviews are being conducted for this position, while recruitment for ounseling positions is underway. Colleges, Departments of Education, nd professional organizations have been notified of our needs. Some 5 applications have been received and interviews are now being nducted.

A separate report on school libraries is in process and will soon be available to the Cambridge School Committee. This report will outline our present status and future plans.

The library at the Peabody School is now functioning efficiently. Some 5,000 volumes are presently available for the children. Regular classes for library instruction are scheduled for most grades. A trained librarian is available 3 days a week.

On the other two days this librarian goes to the Russell School where a room is being equipped. Although the space required for a modern elementary school library is not met by the conversion of a classroom, it is a beginning. Classes are held. Children do borrow books. Additional volumes are on order, and more will be purchased in the months ahead.

The Longfellow School now has a library in operation with a trained librarian who shares her time with the Agassiz School as the need arises. Again, many additional volumes are on order, and more will be purchased this year. The Agassiz School does not have as many volumes, but will soon be operational.

Schools which presently do not have facilities which allow the establishment of a library room, however, will not be neglected. A book-drop centered at Rindge Technical School is being planned. Shelving is now available. Details concerning this operation are still to be worked out.

but it is expected that this plan will be implemented by September, 1965.

The Cambridge School Department and the Cambridge Health Department have always had a mutually cooperative relationship. This condition continues with Dr. Sachs and his associates. Our objective is the same; better health for each child in Cambridge. The problem presented, however, is how to achieve this goal when skilled personnel in this area is scarce. There are approximately 7,000 preschool children in our population as well as some 18,000 of school age in the 31 schools in Cambridge. These children are being serviced by 16 staff public health nurses and two public health nurse administrators. The Assistant Superintendents have been working with Dr. Sachs to develop, if possible, a more comprehensive plan of preventative and corrective health activities. Our present program, though good, will be improved.

(10) Are the lines of communication kept open to the community?

To the best of the administration's knowledge, no parent or citizen has been refused an interview either at the School Department office or at any school in the system. Communications between individuals and the staff are kept open.

There is constant, daily effort by the administration to cooperate with educational, civic and social groups. Members of the staff have spoken regularly at P.T.A. meetings. They are still available. The Assistant Superintendents have addressed the Council of P.T.A.'s as well as individual P.T.A.'s. They have spoken before the Friends of the Public Schools. Conferences have frequently been held with the leadership of these organizations.

The School Department is represented on the Cambridge Community Services, the Economic Opportunity Committee, the Civic Unity Community, and the Red Cross. We have representatives on various boards of directors, neighborhood associations and similar organizations.

The School Department sponsors an annual series of monographs and articles in its publication *THE CAMBRIDGE PUBLIC SCHOOLS*. In the past four years more than a dozen monographs and articles of topical educational interest to the entire community have been published. Each article has been authored by members of the staff of the Cambridge School Department.

How to improve our communications with and to the community is a problem to which much time and thought has been given. The programs described are being actively performed, but the administration is aware that a greater effort is necessary before the problem is solved completely. Informed parental and civic groups are the best public relations this school system can have. The administration is striving daily to inform each and every citizen of the facts so that opinion may have the essential basis of truth.

Other criteria somewhat more specific also confirm the general findings of the Kiernan check list.

1. Class size: The School Department has attempted to keep a good pupil-teacher ratio for there is a firm conviction that there is positive correlation between class size and individual pupil accomplishment. In general it has been possible to achieve this objective. Moreover, the

chool Committee has passed an Order that class size wherever possible ould not exceed 34 with the optimum ratio of pupils per teacher at in kindergarten through grade 6. In grades 7 and 8 the optimum tio is 30 with a maximum class of 38.

2. Achievement Test Results: There is a positive correlation be- een intelligence and achievement as measured by objective tests. This report is based upon all children in the grades regardless of age, . no attempt has been made to exclude those over age in grade (modal e norm is not used).

Available figures indicate that instruction is satisfactory with young- rs achieving at their capacities — high intelligence producing high hievement, etc.

3. Attendance: A third criteria which has some value in evaluation the daily attendance of the students. In a very real sense this is pupil aluation of his daily instruction.

4. Drop-Out Survey: The drop-out rate also reflects to an extent e student evaluation of his education. In the year 1962-1963 Cam- idge High Schools had a drop-out rate of 3.30% with 134 students of the 4007 enrolled in our secondary schools leaving without completing their formal training. At Cambridge High and Latin School the percent was 2.75; Rindge Technical School 5.51%. Of the 134 who left only 16 stated it was lack of interest in school, i.e. they did not find what they wanted.

A study made by the Bureau of Pupil Services as to the reasons for the drop-out in 1962-1963 showed the following:

		Cambridge High and Latin School		*Rindge Technical School*
I	Preferred work to school	11 Boys	28 Girls	29
II	Wasn't interested in school work	2 Boys	6 Girls	8
III	Financial Reason	1 Boy	3 Girls	5
IV	Failing, did not want to repeat grade		3 Girls	1
V	Dislike of teacher or subject ..	None	None	None

		Cambridge High and Latin School		*Rindge Technical School*
VI	Health	1 Boy	14 Girls	None
VII	Parental desire	None	2 Girls	None
VIII	Marriage	None	7 Girls	None
IX	Armed Forces	None	None	3
X	Youth Service	1 Boy	2 Girls	None

The Administration is not completely satisfied with this drop-out ratio. We will not be until the figure is reduced to an absolute minimum thus reflecting in practice the true meaning of meaningful education. Such a figure would reflect the true holding power of the school system for it would not merely indicate the judgment of the students but also the opinion of the home. It is our policy to try to keep each student in school not because there is a legal requirement but rather because a need is being met, met in such a way that the student is aware of it.

Salute

to

Tomorrow's Leaders

presented by

The Rotary Club of Cambridge

Testimonial Luncheon

in honor of

Members of the National Honor Society

Cambridge High and Latin

Rindge Technical

With automation a positive factor in our present society and the realization that its consequences can be projected as a societal problem if training has not been provided the Cambridge School Department will continue in every possible way to improve its curriculum to meet each individual need.

Rindge Key Club

5. Graduate Follow-Up Study: The drop-out rate is important as previously suggested. It is important, also, to determine the immediate success or failure of the preparation of those who graduated. The following table provides a breakdown of the destinations of the 196 graduates of both high schools.

Cambridge High and Latin School
Graduate Follow-up Study
Class of 1964

			Per Cent
Number of Graduates		511	
Questionnaires Sent		511	
Number of Responses		501	98.04
Further Education		198	38.75
Colleges and Universities		115	
Technical Institutes		2	
Junior Colleges		17	
Prep Schools		10	
Business Schools		26	
Nursing Schools		8	
Miscellaneous Schools		9	
Post Graduates		11	
	Total	198	

nployed (full time)	252	49.32
nployed (part time)	13	2.54
rmed Services	20	3.91
arried (at home)	9	1.76
nemployed	9	1.76
oved (no further address)	10	1.96
Total	511	100.00

Rindge Graduate Follow-up Study

Class of 1964

		Per Cent
uestionnaires Sent	156	
umber of Graduates	156	
umber of Responses	151	96.79
rther Education (full time)	44	28.21
Colleges and Universities	19	
Technical Institutes	10	
Junior Colleges	4	
Prep Schools	4	
Business Schools	2	
Miscellaneous Schools	2	
Post Graduates	3	
nployed (full time)	71	45.51
nployed (part time)	1	.64
rmed Services	24	15.38
nemployed	10	6.41
eceased	1	.64
oved (no further address)	5	3.21
Total	156	100.00

Conference in a School Library

Art Workshop

The Administration believes that there is quality education in Cambridge based upon the evaluative criteria established by Commissioner Kiernan — or any criteria chosen. May we state that this does not mean improvement is not needed, that progress cannot be made, that constant study and necessary revision of curriculum, of personnel practices, and of recruitment policies are not required. Moreover, as the system refines its present practices each of us must be mindful of the change anticipated tomorrow. No period in the history of education requires more thoughtful blending of the good of the old with the good of the new. The Cambridge Public Schools strive to this end. They will continue.

Rindge Technical School

Plan for a Technical Institute at the 13 and 14 Grade Levels

The two year Technical Institute is intended to extend the system of public education for those young men and young women of Cambridge who can profit from instruction offered at the level of higher learning. It is planned as a day school which will be in session thirty hours per week for thirty-eight weeks. The aims of the institute are twofold.

In the first instance, it aims to offer a program of cultural and technical studies which will enable a student to continue his education beyond the two post-high school years if the inclination and opportunity make it feasible for the individual to continue.

The alternative is to make available to the student a program which may be considered terminal education and from which, upon graduation, a person would be qualified to obtain employment in his chosen field.

Either of these objectives can be attained by a course of study which offers the proper balance in general education and specific training for a career. The immediate need in science and industry is for engineering technicians, but technicians of all grades are in demand. In the case of engineering technicians, they are regarded by Dr. Kelley, Deputy Director of N.A.S.A., as the most valuable people serving the entire field of science and engineering. This attitude is commonly held by many other people who are in a position to evaluate the contributions made by this grade of technician.

After consultation with members of the Advisory Committee of the Rindge Technical School and officers of the Massachusetts Department of Education, it was decided that the best course for Cambridge was to offer a two-year course in Electronic Technology and a program of similar length in Chemical Technology. The choice of technical areas was decided upon because the courses could be established by using the facilities of the Rindge Technical School.

Admission Requirements:

Applicants should be graduates of a high school. They must ha completed the following subjects:

1. Four years of English
2. Three years of mathematics
3. Two units in science
4. Two units in history

As an additional aid in making a selection of students it is suggest that appropriate tests of aptitude and ability be given to all applican As to the possible number of applicants to be admitted in the first ye a maximum of fifty seems, on the basis of experience, to be a reasonab number and our budget estimates are based roughly on that numb of students.

In calling attention to the following topics, we indicate the practic followed by other technical institutes. The procedures are intended be of assistance in formulating the policies which will govern grad thirteen and fourteen in the Rindge Technical School.

Faculty

The members of the staff should be sought out and selected on t strength of their training, their capabilities and their personal fitne They may be educators or people professionally trained for the subje they are going to teach. When engaging the teacher of a techni subject there should be no requirement that the individual must ha prior experience in the industrial field. If there is need for traini in Education for persons who come into teaching directly from colle or with a background of experience in industry, this deficiency can remedied through in-service training.

Salaries

The salaries of teachers selected to instruct at the grade thirteen a fourteen level generally carry a differential over those of teachers grades nine through twelve, and the number of steps to maximum a fewer. Part-time instructors' salaries are pro rata.

uition

In some technical institutes there is a moderate tuition charge for ose who reside in the community; in other schools there is no charge. is common practice to charge those students who come from other mmunities a larger tuition fee.

es

Laboratory fees and general supplies are charged to the student in me areas while in other instances they are furnished to him at no cost.

ooks

Textbooks may be furnished by the community or they may be bought the students. It is more often the case that textbooks are purchased tright by the students rather than loaned by the community.

The following pages give a tentative list of courses and distribution of ne. This is followed by a budget estimate for the months of September, October, November and December 1965.

Proposed Curriculum in Chemical Technology

C = Class Hours L = Laboratory Hours

FIRST YEAR

First Term	C	L	Second Term	C	L
glish I	4	0	Technical Writing I	3	0
ysics I	2	4	Physics II	2	4
thematics I	3	0	Mathematics II	4	0
neral Chemistry I	5	6	General Chemistry II	5	6
ctricity I	2	3	Electricity II	2	3

SECOND YEAR

First Term	C	L	Second Term	C	L
hnical Writing II	2	0	Humanities	4	0
thematics III	3	0	Quantitative Analysis I	2	4
ganic Chemistry II	4	6	Organic Chemistry II	2	4
nomics I	4	0	Economics II	2	0
ctricity III	3	2	Quantitative Analysis II	2	4
antitative Analysis I	2	4	Stoichiometry	4	0

Proposed Curriculum in Electrical Technology

C = Class Hours L = Laboratory Hours

FIRST YEAR

First Term	C	L	Second Term	C	L
English I	3	0	English II	3	0
Mathematics I	5	0	Mathematics II	4	0
Physics I	4	2	Physics II	4	2
Electricity I	5	6	Electricity II	5	6
Mechanical Drawing	0	4	General Chemistry I	2	4

SECOND YEAR

First Term	C	L	Second Term	C	L
Humanities I	3	0	Humanities II	3	0
Mathematics III	4	0	Mathematics IV	3	0
Electronics I	2	4	Electronics II	3	6
D. C. Machinery	2	4	A. C. Machinery	3	6
General Chemistry II	2	4	Economics II	2	0
Economics I	4	0			

Cost Estimate for Technical Institute General Items

Textbooks	$2500.00
Supplies — paper — notebooks etc.	250.00
Reference and resource books	3500.00
Replace library floor with vinyl asbestos tile	600.00
	$6,850.00
Total Cost for Chemistry Laboratory, Electronics Laboratory and General Items:	$24,695.00

Cost Estimate for Technical Institute — Salaries

Salaries for 2 full-time instructors for four months	$5200.00
Salaries for 3 half-time instructors for four months	4000.00
Salary for one full-time librarian for four months	2350.00
	$11,550.00

Rindge Technical School

Plan for a Technical Institute at the 13 and 14 Grade Levels

The two year Technical Institute is intended to extend the system of public education for those young men and young women of Cambridge who can profit from instruction offered at the level of higher learning. It is planned as a day school which will be in session thirty hours per week for thirty-eight weeks. The aims of the institute are twofold.

In the first instance, it aims to offer a program of cultural and technical studies which will enable a student to continue his education beyond the two post-high school years if the inclination and opportunity make it feasible for the individual to continue.

The alternative is to make available to the student a program which may be considered terminal education and from which, upon graduation, a person would be qualified to obtain employment in his chosen field.

Either of these objectives can be attained by a course of study which offers the proper balance in general education and specific training for a career. The immediate need in science and industry is for engineering technicians, but technicians of all grades are in demand. In the case of engineering technicians, they are regarded by Dr. Kelley, Deputy Director of N.A.S.A., as the most valuable people serving the entire field of science and engineering. This attitude is commonly held by many other people who are in a position to evaluate the contributions made by this grade of technician.

After consultation with members of the Advisory Committee of the Rindge Technical School and officers of the Massachusetts Department of Education, it was decided that the best course for Cambridge was to offer a two-year course in Electronic Technology and a program of similar length in Chemical Technology. The choice of technical areas was decided upon because the courses could be established by using the facilities of the Rindge Technical School.

Admission Requirements:

Applicants should be graduates of a high school. They must hav completed the following subjects:

1. Four years of English
2. Three years of mathematics
3. Two units in science
4. Two units in history

As an additional aid in making a selection of students it is suggeste that appropriate tests of aptitude and ability be given to all applicant As to the possible number of applicants to be admitted in the first yea a maximum of fifty seems, on the basis of experience, to be a reasonab number and our budget estimates are based roughly on that numb of students.

In calling attention to the following topics, we indicate the practic followed by other technical institutes. The procedures are intended be of assistance in formulating the policies which will govern grad thirteen and fourteen in the Rindge Technical School.

Faculty

The members of the staff should be sought out and selected on th strength of their training, their capabilities and their personal fitnes They may be educators or people professionally trained for the subjec they are going to teach. When engaging the teacher of a technic subject there should be no requirement that the individual must ha prior experience in the industrial field. If there is need for trainin in Education for persons who come into teaching directly from colle or with a background of experience in industry, this deficiency can remedied through in-service training.

Salaries

The salaries of teachers selected to instruct at the grade thirteen an fourteen level generally carry a differential over those of teachers grades nine through twelve, and the number of steps to maximum a fewer. Part-time instructors' salaries are pro rata.

uition

In some technical institutes there is a moderate tuition charge for ıose who reside in the community; in other schools there is no charge. : is common practice to charge those students who come from other ɔmmunities a larger tuition fee.

ees

Laboratory fees and general supplies are charged to the student in ɔme areas while in other instances they are furnished to him at no cost.

ooks

Textbooks may be furnished by the community or they may be bought ɣ the students. It is more often the case that textbooks are purchased utright by the students rather than loaned by the community.

The following pages give a tentative list of courses and distribution of me. This is followed by a budget estimate for the months of Sepmber, October, November and December 1965.

Proposed Curriculum in Chemical Technology

C = Class Hours L = Laboratory Hours

FIRST YEAR

First Term	C	L	Second Term	C	L
ıglish I	4	0	Technical Writing I	3	0
ıysics I	2	4	Physics II	2	4
athematics I	3	0	Mathematics II	4	0
eneral Chemistry I	5	6	General Chemistry II	5	6
ectricity I	2	3	Electricity II	2	3

SECOND YEAR

First Term	C	L	Second Term	C	L
chnical Writing II	2	0	Humanities	4	0
athematics III	3	0	Quantitative Analysis I	2	4
ganic Chemistry II	4	6	Organic Chemistry II	2	4
onomics I	4	0	Economics II	2	0
ectricity III	3	2	Quantitative Analysis II	2	4
uantitative Analysis I	2	4	Stoichiometry	4	0

Proposed Curriculum in Electrical Technology

C = Class Hours L = Laboratory Hours

FIRST YEAR

First Term	C	L	Second Term	C	L
English I	3	0	English II	3	0
Mathematics I	5	0	Mathematics II	4	0
Physics I	4	2	Physics II	4	2
Electricity I	5	6	Electricity II	5	6
Mechanical Drawing	0	4	General Chemistry I	2	4

SECOND YEAR

First Term	C	L	Second Term	C	L
Humanities I	3	0	Humanities II	3	0
Mathematics III	4	0	Mathematics IV	3	0
Electronics I	2	4	Electronics II	3	6
D. C. Machinery	2	4	A. C. Machinery	3	6
General Chemistry II	2	4	Economics II	2	0
Economics I	4	0			

Cost Estimate for Technical Institute General Items

Textbooks	$2500.00
Supplies — paper — notebooks etc.	250.00
Reference and resource books	3500.00
Replace library floor with vinyl asbestos tile	600.00
	$6.850.00
Total Cost for Chemistry Laboratory, Electronics Laboratory and General Items:	$24,695.00

Cost Estimate for Technical Institute — Salaries

Salaries for 2 full-time instructors for four months	$5200.00
Salaries for 3 half-time instructors for four months	4000.00
Salary for one full-time librarian for four months	2350.00
	$11,550.00

Cost Estimate for Technical Institute Chemistry Laboratory

Laboratory glassware	$4000.00
Chemicals and reagents	1500.00
Refitting laboratory as follows:	
New gas cocks	60.00
Re-seal sinks and check traps	250.00
Provide Electrical outlets	500.00
Repair hoods and ducts	500.00
Replacement faucets	300.00
Replace locks on cabinets	300.00
Apparatus as follows:	
Burners	100.00
Stands with rings	200.00
Clamps	150.00
Pneumatic troughs	100.00
Water demineralizer	45.00
Laboratory still	175.00
Porcelain ware	425.00
Brushes	50.00
Eye protectors	150.00
	$8805.00

Cost Estimate for Technical Institute Electronics Laboratory

	For material to rebuild and re-arrange existing benches	$500.00
	Labor for re-locating electrical outlets and re-building benches	500.00
25	Electronic training sets	4700.00
6	Power Supplies	600.00
6	Oscilloscopes	1000.00
6	Audio and Signal generators	1200.00
6	VOM meters	240.00
6	VTVM meters	300.00
		$9,040.00

OFFICE OF THE
SUPERINTENDENT OF SCHOOLS
1700 Cambridge Street
Cambridge, Massachusetts 02138

JOHN M. TOBIN, *Superintendent*

Report of the Advisory Committee on Racial Imbalance and Education

A Policy Statement on the Report by the Cambridge School Department

In July of 1964, an interim report, prepared by the Advisory Committee on Racial Imbalance and Education which had been established by Dr. Owen B. Kiernan, Massachusetts Commissioner of Education, was released to the public. The report indicated that one Cambridge School (the Houghton) was, by definition, racially imbalanced.

The administration of the Cambridge School Department, working in conjunction with Task Force #1 of the Advisory Committee on Racial Imbalance and Education, conducted a survey of the Cambridge Public Schools concerning the implications within the July report. The following policy statement was drawn up in late 1964. It contains specific recommendations for Cambridge in the areas of the Report which appear to affect selective locations in the Cambridge school system.

The policy statement reiterated that the Cambridge School Department is, and has been over a long period of time, in agreement with the general conclusions stated at the beginning of the report.

The recommendations follow:

The earliest possible replacement of the Houghton School: —

Members of the School Committee are aware that at the meeting of School Committee on December 15, 1964 this body after study of orts and recommendations of the School Building Advisory Com- ttee passed an order requesting the City Manager for immediate ion for obtaining three new schools including a new Houghton hool. This order was reinforced by an additional order of the School mmittee on February 16, 1965 selecting the present site of the oughton School as the location for the new school.

Although the racial imbalance found in March, 1964 has been altered by increased enrollment of white children, it is not our intent to use this fact as a reason for not facing this situation. A new Houghton School will give to the children of this area the facilities necessary to maintain quality education.

B. Redefinition of attendance areas:

The redefinition of attendance areas or districts will be undertaken by the School Department as soon as the location of the new Houghton School is finalized. This review will be in depth and will include the Webster and Morse Schools as well as the Houghton School.

C. The adoption of an effective open enrollment policy as an interim measure pending completion of a new Houghton School as stated in the report:

The Cambridge School Department recommends the adoption of an open enrollment policy as an interim measure pending the completion of the three additional new schools which have been voted by the School Committee, the Houghton, the combined Putnam-Thorndike and the combined Haggerty-Russell.

Specifics of the implementation of this policy will be developed in accordance with the provisions set forth on Pages 55 and 56 of the report.

The reference to the effectiveness of the adoption of a compensatory education program elicits the following statements consistent with Appendix 1C of the report:

(1) Summer educational programs.

a. Summer school classes for both review and enrichment were inaugurated for grades 9 through 12 in June, 1963. In June, 1964 classes were expanded to grades 7 and 8. The same program has already been adopted for the summer of 1965.

b. In conjunction with Educational Services, Inc. of Watertown a summer school was conducted for the elementary grades at the Peabody School in 1963 and at the Morse in 1964. Final details are being completed for a similar program for 1965.

(2) Pre School Programs.

a. In the summer program conducted by the School Department and Educational Services in 1963 and 1964 the enrollment in the kindergarten group was comprised of children of preschool age.

b. The Cambridge School Department on April 12, 1965 forwarded the request to Washington for the funds to establish preschool classes for three hundred preschool children during July and August, 1965. The application is authorized under the Economic Opportunity Act.

(3) Elementary School Programs.

a. Remedial reading programs have been an integral part of the regular school program for several years.

b. Proposals have been submitted for consideration by the Cambridge Economic Opportunity Committee for after school study centers in our schools.

c. Funds for further expansion of our guidance program were voted by the School Committee in January, 1965.

(4) Secondary School Programs.

a. A plan for the extension of the summer high school program to provide classes in vocational training has been submitted to the Cambridge Economic Opportunity Committee.

b. Adult education classes have been conducted by the School Department both in academic and vocational aspects over the last four years. The type of instruction has been limited only by the requests of the enrollees.

c. In co-operation with T.E.S.T. of Cambridge (Teen-Age Employment Skills Training), a program has been in operation to pinpoint potential drop-outs and to provide the latter with a school work program with compensation. The basic requisite is that teenagers continue as school enrollees. Future funding has been requested from the Federal Government.

d. Expansion of the guidance program has been funded by the School Committee and is being implemented for September, 1965.

e. Additional programs for vocational guidance and placement have been regularly scheduled activities of the high schools in coordination with industry in the surrounding geographical area.

f. The present program leading to prevention of drop-outs and contacts with drop-outs will be expanded with the addition of the authorized guidance personnel.

The School Department is also working closely with many agencies involved in improving the educational opportunities for our children. The tutorial programs in Neighborhood 4, the program at Roosevelt Towers, and "Challenge" all are directed to helping youngsters. The School Department is co-operating in every way.

The School Department in 1954 issued a Curriculum Guide for Democratic Human Relations which has been in use in our schools since that date. In a foreword the Superintendent stated that he "si

erely believed that education for democratic human relations which mphasizes the translation of belief into practice builds character and multaneously strengthens our nation by making our political, social, conomic and religious way of life a reality for each of our citizens gardless of the group with which he is identified." Although a committee is presently up-dating references and expanding the bibliography, e philosophy of 1954 is that of the present day School Department. The statements outlined in this policy statement are in general agreement with the conclusions and the recommendations of the Report of e Advisory Committee on Racial Imbalance and Education. Although in Cambridge all races have lived together in a cosmopolitan area with mutual concern and respect for each other that should be the envy of other municipalities of similar diversification, improvements can and will continue.

The fact that technically we do not presently have any racially imbalanced school in the Cambridge Public Schools will not be a source of contentment or satisfaction.

Our goal shall be that which is best for each child whom parents entrust to our care.

JOHN M. TOBIN
Superintendent of Schools

Science Trainee Program — Summer, 1964

During the summer of 1964, fourteen Cambridge elementary school teachers participated in an intensive six-week training program of training in the use and presentation of a variety of classroom teaching units in science being developed experimentally under the guidance and direction of the Elementary Science Study Staff of Educational Services, Incorporated.

Six of the teacher trainees were lower elementary grade teachers, while the balance were selected from grades six to eight.

Each participant received a stipend, the amount of which varied with the dependency situation of the trainee. The stipend was substantially supported by a school department appropriation voted by the Cambridge School Committee in the spring of 1964, with the balance coming from ESI funds. Their class/laboratory day began at 8:00 A.M., and was frequently not concluded until the late afternoon.

Educational Services, Incorporated is a private, non-profit organization which is "committed to increasing the effectiveness of both th content and the process of education by generating new ideas. . . The operating words here that could aptly describe the Elementa Science Study Group are 'generating new ideas'. A major contributio of the teaching staff was in having the trainees become less depende on classroom teacher demonstrations and teacher explanations of scie tific phenomena.

A basic view held by the teaching staff was that, too often, the teac ing of science in the elementary school involved highly "structure materials; that is, a textbook defined a unit of science, presented t latest information in the area, explained the phenomena, and suggeste experiments or demonstrations designed to illustrate the phenomen The unit — more often than not — concluded with the convention test on the unit material.

Contending that this traditional teaching/learning method has had deadening effect upon scientific curiosity in children, the study grou therefore, did away with "pre-cooked" units, with the formal langua of science, with the laboratory as simply a place to answer question The result was "discovery" — a much abused method in science educ tion — but discovery strictly on the individual child's conceptual lev

Indeed, the fourteen teachers, in their own classes, discovered th true meaning of "discovery". Each morning brought a new angle approach to solutions of puzzles produced from the previous day's e perimentations. Each new manipulation of the materials in the uni being studied created a leap — like a spark across a gap — to a mo interesting or sophisticated manipulation. Throughout the class da trial-and-error experiments led to increasingly refined experiments - frequently hilarious in their unexpected outcomes, often vexatious unsuccessful, many times brilliantly successful. Accompanying th genuine thrills of discovery were the magic interrogatories denotin intense interest, "Why did that happen?" "I wonder if it would happ exactly that way if I did this?"

A typical class day began at 8:00. The staff instructors would stim late curiosity by pointing to an assortment of apparently unrelated od and ends lying before the students at each table, and suggest that som thing interesting might happen just by "fiddling around" with th

aterial. The first day involved no little urging on the part of the nstructors, for the teachers had a lot of "structured" behavior to unlearn efore they felt easy enough to just "fiddle around". Once the breakhrough began, however, a torrent of experimenting and exploring ook place.

Each morning, after their own classes, the trainee teachers became bservers in classes composed of children attending the summer school onducted by ESS. There, they witnessed children manipulating, hanling, experimenting with, questioning, judging, and just plain "fidling with" the unit materials the teachers had just left. This was a time f revelation. Children ran into many of the problems and puzzles that he trainees had faced, and many of them solved the enigmas in much he same fashion as had the teachers.

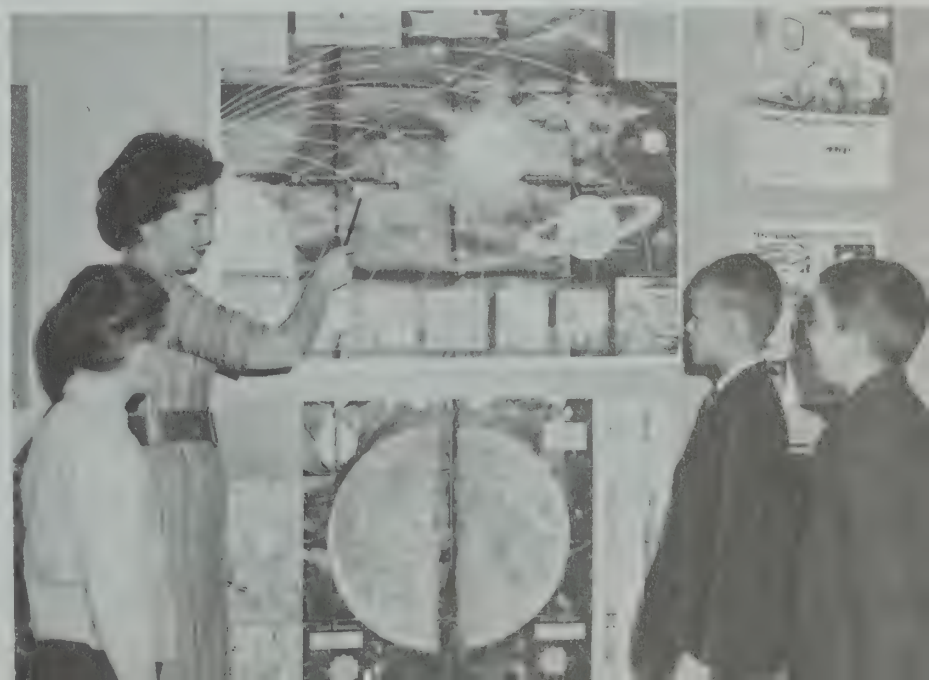
These observations served two purposes. The trainee teachers became areful observers of the teaching methods employed by ESS teaching taff members, and they gained daily recognition of the psychological nd intellectual variations within a conventional group of schoolchildren hich reinforced, in a dramatic manner, what teachers have always ecognized; the emphatic role that individual differences play in the rocess of learning. A useful by-product of the daily observations, it ight be added, was an assessment of promising and unpromising ethods the children pursued in attacking problems and refining their ethods of experimentation.

So deeply involved did the trainees become in class experimentations nd classroom observations that even the noon lunch break became a ime of deep discussion and evaluation vis-a-vis the ESS staff members, isiting scientists and school administrators, staff consultants, and fellow rainees from adjoining school systems. The trainees found that these iscussions involving the exchange of views and understandings were aluable periods designed to create a two-way communication between hem and the staff teachers. In an informal atmosphere of give and ake, the teaching philosophy of the ESS staff was explained and elabrated, while the trainees found their views received with respect and onsiderable appreciation.

The sessions never lacked topics for discussion, since they often dealt with evaluations of immediate classroom experiences with the children. n stimulating and vigorous exchanges, staff members were queried by the trainees on particular teaching techniques that staff teachers were using. The trainees agreed that, added to the classroom observations, these lunch time discussions greatly clarified their understanding of an "unstructured" learning situation, the foundation stone of the ESS training program.

Attempting to summarize the major satisfactions achieved by the trainees is a formidable task indeed. A questionnaire sent to the fourteen trainees requested that they list the major satisfactions they realized through program participation. They were also asked to indicate proposed changes in their teaching methods in science.

All trainees agreed that the ESS training program revealed a need for more child experimentation and exploration, with less directive teaching. The great majority of teachers planned to utilize the ESS staff technique of "teaching by questioning", and to provide a more flexible classroom atmosphere — essential to learning in an "unstructured" situation. An important satisfaction, it was agreed, was in allowing children to proceed at their own pace, and to accept answers to the



phenomena presented which were individually satisfying to the child involved.

One aspect of the program which appealed to the teachers was the free and voluntary exchange of information among the children. They shared their discoveries, their successes and their failures with wonderful impartiality at the moment of occurrence. Many teachers said that this aspect — a more permissive communicative atmosphere in the class — was an important means of gaining insights into and understandings of the problems children encountered and their solutions to them. The questionnaire also revealed that the teachers were impressed by the wide range of experimental procedures indulged in by the children. This in their view, revealed intellectual development far better than a conventional test.

A number of the units studied are now being taught by the trained teachers in their regular classrooms. "Feedback" information is being received by ESI, and teacher-recommended refinements are being considered and evaluated. A new and challenging method of teaching science to elementary school children is now in operation in several of our schools. With enthusiasm and devotion, these teachers are now offering bright new horizons of intellectual development to the school children of Cambridge.

A Project in Citizenship

The High School Art and Social Studies Classes Coordinated to Research, Plan and Produce These Results for a Freedom Foundation Award.

The Problem of School "Drop-Outs"

For many years, our country has been perplexed by the twin problems students who leave school at age sixteen — the point at which they n no longer legally be compelled to remain in school — and those who l to complete their high school education. The professional educator s aways recognized with dismay that when young people leave school thout earning a high school diploma, the individual's and the nation's elopment are really and seriously stunted.

With automation increasing in industry, a new problem has arisen. ow may work be found for the person lacking the skills needed in w job categories created by automation? With this question, both bor and Management are concerned. Labor is concerned for the lfare of its membership as the "new" industrial revolution displaces rkers, rendering their jobs obsolete as automatic machinery eliminates erations which, in the past, enabled thousands to earn their livings in manufacture of automobiles, electrical appliances, and hundreds of er lines of merchandise.

Industrial management, on the other hand, finds it more and more ficult to obtain people who possess the fundamental knowledge — gely school taught — necessary to grasp the specific requirements of w occupations brought about by automation in industry.

The matter of adequate training in schools for the purpose of learning w techniques and ways of making a living is not the only major con- n which has brought the school "drop-out" problem into national us. The explosion of knowledge, and its effect upon national produc- ty has produced a condition of continual change in production effi- ncy. This important principle — that change is an essential part of industrial way of life — has indicated the startling possibility that a rker may need to be retrained several times in his occupational area order to continue as a productive member of society. Thus, the dence mounts that the need for more education and new skills fur- r magnifies the nation's concern over the school "drop-out" problem. Our nation is faced, then, with two disturbing facts. Too many young ple leave school before completing their education to the point of equate knowledge, while employment opportunities remain unfilled for the lack of people who have the necessary training and knowledge which are the products of secondary school education. It is now becoming obvious that if more of our work population is to gain useful employment in order to enjoy personal satisfaction and material benefits, the completion of at least the twelfth grade in school appears imperative in these times.

It is frequently stated that jobs requiring only the simplest skills have declined twenty-five percent in the past ten years, and the percentage is moving upward. The problem, then, requires two solutions. Individuals must be trained to seek their vocations in the new job areas, and boys and girls must be dissuaded from the persistent illusion that gainful, fruitful employment can be found before they complete high school.

What sort of person is he, the would-be "drop-out" who thinks that all his problems would be solved if he could only go to work? Often, he is an outgoing personality who makes people aware of his viewpoint long before he reaches age sixteen. At this point, school counseling frequently guides him to change his mind, and he may well go on to graduate. Since this type of "drop-out" is often detected in the seventh or eighth grade, time is on the side of the schools. Given a reasonably normal family situation involving strong parental urging, he often completes his high school years.

Conversely, the silent and uncommunicative potential "drop-out" rarely provides advance notice of his intention to leave school. He seeks little advice, either from his home or school. On his sixteenth birthday, he flatly declares his determination to leave school now. Too often the school achieves only a temporary stay of his action, while counselors and parents try to point out to the individual some of the consequences of his dropping out of school.

School behavior is a frequent indicator of a potential school "drop-out" problem. A strong correlation exists between school misbehavior and a serious deficiency in reading ability. This lack of ability presents the student with great difficulties in the mastery of academic subjects. While in many cases he is not lacking in sound reasoning ability, he concludes that it is better to earn one's living with his hands, rather than with the mind. His reasoning, of course, is faulty. Educators realize that because an individual possesses well-developed hand skills,

it does not follow that he is unable to earn when ideas are presented by words and numbers. However, when a lack of reading ability is revealed, the manner of teaching is usually adjusted, and the education of the youth is commonly maintained in the area of the manual arts. While, for many students, the approach to learning by emphasizing the acquisition of hand skills is the proper one, there is a continuing tendency to assume that every pupil who experiences learning difficulties in reading and writing should turn to a program where skill training is emphasized.

Relying so heavily upon words and numbers as it does, our educational system may well be penalizing a "drop-out" for being an individual rather than one of those who can succeed in the educational system as it is presently constituted. So claim some critics, who maintain that, because of this reliance, the schools exert a negative influence on some students. This may be so, but the schools are no match for pressures upon the "drop-out" creatd by out-of-school environments. With rare exceptions, the sixteen year old "drop-out" is found to lack the degree of personality development typical of this age. With no plan for the future, he is often critically influenced by out-of-school associates. Efforts to help the "drop-outs" by school or other agencies are many times ineffective because of the confused and uncertain state of mind of the youth, characterized by unpredictability of decision and lack of dependability.

This, then, is the type of youth we must help. Many of them possess learning capabilities that are average or above average. If this annual flood of school "drop-outs" is to be checked, then new and novel means must be found to accomplish this.

The Prevention of School "Drop-Outs"

The problem of over one million school drop-outs a year has resulted in an avalanche of studies by sociologists, psychologists, educational counselors, and school administrators. The "whys" of early school leaving have been pin-pointed. Inducing young people to remain in school until graduation is now the main emphasis of the research in this problem. Happily, there are multiplying signs that more and mor of America's high schools are devising ways and means of increasin their holding power. Many of these methods offer high promise o success.

The overwhelming majority of studies dealing with drop-outs recom mend strongly that greater emphasis be placed on intensive and exter sive counseling services in the schools. The Cambridge Public School are planning to augment the guidance and counseling services availabl in its two high schools by holding an examination soon to add two ful time counselors at Cambridge High and Latin School, and an add tional counselor at Rindge Technical School.

Presently in action is an experimental counseling program in th elementary schools for grades seven and eight. This pilot program i being conducted in four schools, the Fletcher, Houghton, Roberts, an Webster. Professional counseling is offered through the medium o scheduled, frequent pupil-counselor conferences. It is designed to pr vide pupils with educational and vocational guidance. Basically, it hel boys and girls to view their abilities and limitations with greater awar ness which will lead them to realistic educational and vocational pla ning. Group guidance — as always — remains the responsibility of th classroom teacher.

In addition to this large-scale counseling service, Cambridge mai tains several services which assist in the identification of pupils wit learning problems. Since many drop-outs reveal a history of scho learning problems, group intelligence testing is an important means o locating potential early school-leavers. The administration of group tes in the second, fifth, and eighth grades, plus a tenth grade administratio for those for whom no such test data are available, is undertaken a nually by the Bureau of Pupil Services. Moreover, in September eac year every child in the first grade is administered a Metropolitan Rea ing Readiness test, while a number of specific reading tests designed spot reading difficulties are administered at various grade levels. I dividual testing by qualified educational psychologists is carried out i connection with children who seem to present more serious problem The Bureau of Pupil Services also offers psychiatric service to referra

ıo present behavioral and personality problems. This last is only with l parental consent and cooperation. A school Adjustment Counselor ll soon be available again to work with elementary school children ıo are experiencing difficulty in adjusting to the school situation.

Last year the Cambridge School Department sponsored a Summer hool. Traditionally, summer schools were designed to enable a stunt to pass a course failed, thus permitting him to remain with his aduating class. Cambridge's Summer School had a four-fold purpose. offered work of a preview nature, designed to attract students who shed to gain a head start in a subject. It gave review courses for stunts who had barely passed such courses in high school. It taught ake-up courses for those who had failed such courses, and, finally, it ovided for personal enrichment in such courses as typing, modern nguages, and art. The school offered the long arm of hope to disuraged, defeated boys and girls who, conceivably, could have added ore unhappy drop-outs to an already high national figure.

Ranking next in frequency of citation as a recommended means of lding in school a discouraged student unable to master the conventnal curriculum is a broader and differentiated offering of courses. appily, Cambridge has had a wide selection of major courses of study both high schools. In response to a growing demand for more highly ined young people in the technical and industrial fields, Rindge echnical School has called into being an advisory committee composed representatives of leading Cambridge industries. Its purpose is to vise and strengthen the school's non-college courses. The committee, close cooperation with faculty members at Rindge, has under discusn a recommendation that each student electing the automobile, elecity, electronic, or mechanical course of study be required to take ee years of science and four years of mathematics. Furthermore, the owing complexities of modern-day industrial and technical skills indie an increasing acceptance of the need for a thirteenth and fourenth year in a technical high school. The effect will be two years of st-graduate technical training before a youth is considered to have quired an adequate theoretical background and the basic skills necessary for qualification as a trainee in industry.

School guidance people have long known that the often stated reason "preferred to work" offered by school drop-outs frequently masks a hidden and deeper reason — often emotional or psychological in origin. They have thus begun to use, in increasing numbers, what has become known as the "work-study plan." In such a program, a student attends school for part of the day. At the completion of his school day, he goes to a cooperating employer in the community for on-the-job training in basic job skills. He receives pay for his work and credit toward his high school diploma.

Such work-study programs in Massachusetts are under the direction of the State Department of Education. A Supervisor in Education for "Work-Study" Programs is available for consultation and help in setting up such a program. A number of Massachusetts communities have already begun to offer such a plan. Our Boys' Vocational School is in the process of establishing such a "work-study" program. It is targeted for the spring, and is designed to keep boys in school until graduation.

It is becoming more and more obvious to employment analysts that young people with no marketable job skills are seriously handicapped in today's unskilled labor market, for this market is constantly shrinking. These young people today represent a hard-core unemployment problem. More than this, they represent a personal tragedy of defeat and discouragement.

The Cambridge Public Schools are attempting to identify the potential drop-out and to help him solve his problems. Our comprehensive testing program designed to reveal learning weakness, our strengthened counseling service at the elementary and secondary levels, our prompt and expert professional concern for the seriously maladjusted child, our wide range of course selection, our design of more rigorous technical courses, and our introduction of a highly promising "work-study" program in the Boys' Vocational School indicate that the schools of Cambridge are striving to provide youth all necessary help along the road that reaches the cherished high school diploma and placement in satisfying, rewarding employment.

A Beginning in Automation

Cost Analysis

School Year — September, 1963 to June, 1964

School	*Salaries A-1*	*All Other Costs*	*Total*
Cambridge High & Latin	$ 804,084.62	$113,315.18	$ 917,400.20
Rindge Technical	420,145.38	53,976.39	474,121.77
Abraham Lincoln	80,922.46	10,612.99	91,535.45
Agassiz	84,905.69	7,328.47	92,234.16
M. E. Fitzgerald	216,727.87	20,856.52	237,584.39
Fletcher	109,448.25	9,915.08	119,363.33
Haggerty	78,902.40	5,574.66	84,477.06
Houghton	144,968.98	14,646.61	159,615.59
Harrington	319,385.98	18,072,64	337,458.62
Longfellow	214,739.89	17,623.37	232,363.26
Morse	164,679.51	13,676.10	178,355.61
Peabody	139,347.46	19,613.08	158,960.54
Putnam	110,479.91	7,654.15	118,134.06
Roberts	196,765.25	16,305.08	213,070.33
Russell	129,586.43	14,642.89	144,229.32
Thorndike	98,440.78	15,612.44	114,053.22
Webster	136,443.51	9,053.32	145,496.83
Boy's Vocational School	51,024.98	1,560.86	52,585.84
Girl's Vocational	17,805.62	2,557.24	20,362.86
Americanization	11,133.00	275.25	11,408.25
Art	64,675.46	1,847.83	66,523.29
Audio Visual Dept.	29,259.96	10,318.94	39,578.90
Children's Museum	13,249.99	145.96	13,395.95
Health & Safety	26,379.50	552.29	26,932.79
Home Economics	18,191.52	320.25	18,511.77
Music	41,808.09	3,979.49	45,787.58
Physical Education	140,005.55	1,573.67	141,579.22
Primary Director	10,780.00	425.00	11,205.00
Substitutes	136,519.50		136,519.50
Superintendent's Office	50,207.00	10,468.28	60,675.28
Prevocational	45,599.97		45,599.97
Evening School	31,209.76	365.27	31,575.03
Custodians	373,316.48		373,316.48
Business Office	125,500.35	24,127.55	149,627.90
War Memorial	9,400.00	2,643.48	12,043.48
	$4,743,061.10	$429,640.73	$5,075,681.83

Statistical Tables

Ages

DISTRIBUTION OF PUPILS BY AGE AND GRADE

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21 Over 21	Totals
Kdgn.	M	217	375	12																604
	F	223	349	5		1														578
I	M		156	292	61	3														512
	F		171	299	36	2														508
II	M			116	274	69	11													470
	F			126	259	38	5	2												430
III	M				103	251	114	8		1										477
	F				130	225	45	8	2											410
IV	M				1	80	244	75	30	10										440
	F					111	211	76	13	1										412
V	M					1	80	170	91	24	7									373
	F						103	191	49	17	4									364
VI	M							75	189	93	22	8								387
	F						3	96	183	61	17	10	1							371
VII	M								67	162	75	32	8							344
	F								93	191	43	26	2	2						357
VIII	M								3	89	192	73	33	2						392
	F								5	95	170	58	17	1						346
IX	M									1	115	222	107	41	6					492
	F									1	128	178	76	28	4		1			416
X	M										1	81	208	92	24	7	2	2		417
	F										1	116	180	54	23	3	1			378
XI	M												120	212	97	23		3		455
	F												101	180	47	11	2			341
XII	M													95	206	65	17	3	2	388
	F													119	169	43	2			333
P.G.	M														15	6	2	1	1	25
	F														6	6				12
Voc. Schs.	M											19	36	10	2	1				68
	F											5	8	6	2					21
Ungraded	M			1	10	13	15	18	22	17	23	14	14	2	3					152
	F			1	6	14	10	5	11	12	17	9	9	2	2					98
Totals	M	217	531	421	449	417	464	346	402	397	435	449	526	454	353	102	21	9	3	5,996
	F	223	520	431	431	391	377	378	356	378	380	402	394	392	253	63	6			5,375
																			Grand Total	11,371

AGE GROUPS

5 years or over and under 7
Boys 952 Girls 951 Total 1903

7 years or over and under 16
Boys 3,885 Girls 3,487 Total 7,372

Number of Pupils in the Grammar Schools

December, 1964

Grade	Boys	Girls	Total
Eighth	380	351	731
Seventh	331	343	674
Sixth	390	358	748
Fifth	362	366	728
Fourth	408	406	814
Total	1871	1824	3695
Ungraded	230	118	348
Total	2101	1942	4043

Number of Pupils in the Primary Schools

December, 1964

Grade	Boys	Girls	Total
Third	458	399	857
Second	461	425	886
First	529	484	1013
Total	1448	1308	2756

Number of Pupils in the Kindergarten

December, 1964

Boys	598
Girls	562
Total	1160

1964 Class Statistics
Enrollment Chart by Grades

Grade	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
I	1,017	1,014	998	1,046	1,066	1,086	1,102	1,064	1,012	1,020
II	891	871	867	886	887	904	894	943	931	900
III	917	877	821	817	848	851	877	850	887	887
IV	878	896	838	797	822	808	812	809	786	852
V	701	852	858	838	763	822	799	784	766	737
VI	710	660	831	836	817	759	809	769	748	758
VII	707	693	662	791	804	798	746	757	747	701
VIII	679	667	655	635	736	740	720	694	703	738
IX	790	933	796	772	693	887	981	1,000	897	908
X	640	722	805	775	742	661	852	888	903	795
XI	567	477	639	749	724	724	573	727	751	796
XII	559	505	466	549	618	606	541	521	699	721
P.G.	8	29	23	21	15	17	12	20	30	37
Ungraded				148	168	126	196	195	227	250

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.	Total
High and Latin	678	612	566	515	28	2399
Rindge	230	183	230	206	9	858
Boys' Vocational	ungraded					68
Girls' Vocational	ungraded					21

Bureau of Pupil Services
1963 - 1964

I. Testing Program

1. Group Tests

Reading Readiness (Grade 1)	1,051
Intelligence Tests	
(Grades 2, 5, 8)	2,428
(Grades 11, 12)	755
(Grade 10)	828
Miscellaneous pupils	209
Achievement Tests	
(Grades 3, 4, 5, 6, 7, 8)	4,560
(Grades 9, 10)	963
Total	10,794

2. Individual Tests

Intelligence Tests	433
Achievement Tests	502
Projective Tests	473
Others	38
Total	1,446

Psychiatric Clinic
1963 - 1964

II. Psychiatric Clinic

Individual Pupils Referred to Psychiatrist

New Cases	Boys...51	Girls...13	Total: 64
Continued Cases	Boys...33	Girls....4	Total: 37

Range

Grade: Kindergarten to Grade 11

Age: 4 years to 17 years

Total Number of Pupils Seen by Psychiatrist

Boys...84 Girls...17 Total: 101

Number of Sessions with Psychiatrist

Pupils:	139
Parents:	102
Total:	241

Staff Conferences with Psychiatrist.....85

There are also numerous telephone discussions, and conferences between the staff of the Bureau of Pupil Services and students, teachers, other school personnel, parents, clinics and agencies.

Psychiatric Clinic

1963 - 1964

Distribution by Grade

Range: Kindergarten - Grade 12

Grade	K	1	2	3	4	5	6	7	8	9	10	11	12	Special	Jr. Prev.	Voc. Adjustment	Total
Boys	2	11	7	8	6	7	5	5	2	6	1	4	1	8	2	2	7	84
Girls	1	3	3	3	1	0	1	0	0	1	1	1	0	0	2	0	0	17
Total	3	14	10	11	7	7	6	5	2	7	2	5	1	8	4	2	7	101

Distribution by Chronological Age

Range: 4 years - 17 years

C.A.	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
Boys	1	1	7	10	8	8	8	7	7	7	7	7	3	3	84
Girls	0	0	1	5	3	2	0	0	2	1	1	0	1	1	17
Total	1	1	8	15	11	10	8	7	9	8	8	7	4	4	101

Annual Report

of the SUPERINTENDENT OF SCHOOLS

CAMBRIDGE PUBLIC LIBRARY

1965

the cambridge public schools cambridge massachusetts

The School Calendar 1965-1966

1st Term September 9, 1965 TO December 23, 1965
2nd Term January 3, 1966 TO February 18, 1966
3rd Term February 28, 1966 TO April 15, 1966
4th Term April 25, 1966 TO June 24, 1966

1966-1967

1st Term September 8, 1966 TO December 23, 1966

School Holidays

Columbus Day; Veterans Day; Thanksgiving Day and the day following; Washington's Birthday; Good Friday; Patriots' Day; Memorial Day; and the Seventeenth of June. If one of these holidays falls on Sunday, the schools are closed on the following day.

Offices at 1700 Cambridge Street
Offices open from 9 o'clock A.M. to 5 o'clock P.M. every day, excepting Saturday

Evening Schools

There are two terms of the evening schools. The first term begins on the second Tuesday of October and closes one week previous to the closing of the day schools for the Christmas holidays. The second term begins on the first Tuesday of January, except when that day falls on New Year's Day, in which case it begins on the Thursday following New Year's Day, and continues for at least twenty-five evenings. Vacations and holidays are the same as in the day schools.

1965 Annual School Report

Chairman
Mayor Edward A. Crane

Vice Chairman
Gustave M. Solomons

The School Committee

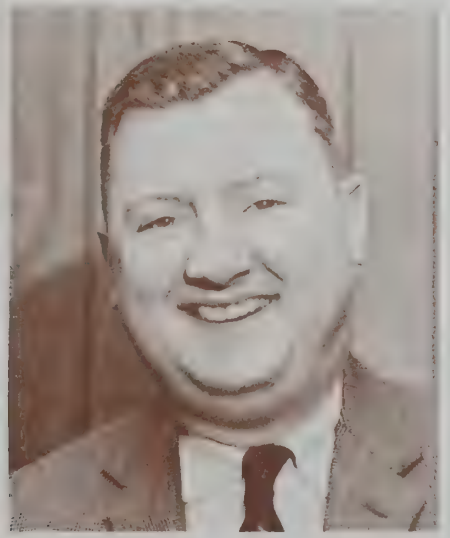
January 1, 1965 to December 31, 1965

Regular Meetings of the School Committee are held on the first and third Tuesdays of each month, except July and August, at the School Committee Office, 1700 Cambridge Street.

rs. Paul Kurt Ackermann

Francis H. Duehay

James F. Fitzgerald, Esq.



Edward M. McMahon

George F. Olesen, Jr.

Edward J. O'Connell
Secretary to the School Committee

1965 Annual Report

of the SUPERINTENDENT OF SCHOOLS

John M. Tobin Superintendent of Schools

CAMBRIDGE, MASSACHUSETTS

"The University City"

Edward A. Conley
Assistant Superintendent
of Schools

David E. Hockma
Assistant Superinten
of Schools

Honorable, the School Committee:

calendar year 1965 has brought a quickening of the involvement school and the community which it serves and for whose better- exists.

lly oriented programs were financed by funds from the Economic tunity Act in the summer pre-school "Headstart" classes, from anpower Development Training Act and the Economic Oppor- Act in the Adult Homemakers Course. The Electronics Tech- Course at grade 13 level of the Rindge Technical Institute was ted with an assist from the Vocational Education Act.

posals for the use of funds available under the Elementary and lary Education Act for After-School Study Centers, Cultural ment Activities, Teacher-Aide Programs, Home-School Liaison, ibrary Materials Expansion have been either submitted or are pre-submission stage.

nbers of our administrative and our teaching staffs have con- d extensive time and knowledge to the development of the educa- aspects of neighborhood programs to benefit the community. The Committee in September, 1965 appointed a Program Coordinator federally financed programs.

nbridge became one of the six local public school systems to join search and Development Center at Harvard University.

al conferences with the Vocational Education Department of ate Department of Education were begun with the express pur- f broadening the present span of the Boys' Vocational School and rdinating its program with that of the Rindge Technical School.

School Committee adopted a long range plan for replacement of der schools. In the next year three new elementary schools are underway. Each emphasizes facilities essential to both educational community needs.

ere is a most apt quote which states that "No man is an island." er are schools and those who are responsible for their philosophy eir programs.

Administrators, teachers, related staff assistants and the buildings in which they work are basically either successful or unsuccessful in the ratio of their services to the needs of the community which they serve.

The coming year will be an exciting, a challenging and physically taxing one for the members of the School Committee and the School Department personnel.

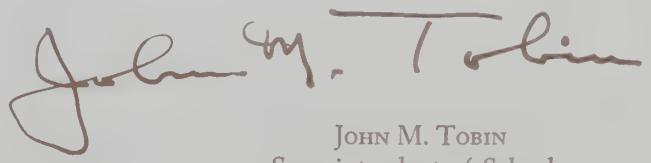
Refinements in existing programs and buildings; replacement of three elementary schools; inauguration of new programs and extension of those fundable under new state and federal funds; coordination in the educational aspects of programs sponsored by other community agencies are matters of primary concern.

Not only must the schools move into the community but, even more important, the community must become a more integral part of the school.

The School and the Community — I am never certain which is more essential — is that aspect of the Cambridge Public Schools which is emphasized in my twenty-first annual report, the ninety-eighth in a series of annual reports of the Superintendent of the Cambridge Public Schools and the one-hundred-twenty-sixth in the printed reports of the School Committee of Cambridge.

There are many things of which one becomes less certain as experience and knowledge increase. But can there be anything more tragic, more useless, more forlorn than a house (or a school) with nobody in it?

I am confident that such will not be the result in this city which will continue to expand its educational programs and facilities. This is our promise and our pledge.



John M. Tobin
Superintendent of Schools

Under the provisions of the Elementary and Secondary Act of 1965 — applicable sections 301 through 308 — of Public Law 89-10, the Cambridge School Department submitted the following proposal to the United States Department of Health, Education, and Welfare, Office of Education.

The proposal was initiatory and broadly flexible as to content and implementation. It reflected a prompt response by the Cambridge School Department to the many possibilities inherent in the provisions of the EASA as it has come to be known.

The full text of the proposal is preceded by Superintendent John M. Tobin's letter of submission of the proposal to the Cambridge School Committee.

Office of The
Superintendent of Schools
1700 Cambridge Street
Cambridge, Massachusetts 02138
John M. Tobin, *Superintendent*

A plan is herewith submitted to initiate action under the Elementary and Secondary Education Act (P.L. 89-10) Title III. The Superintendent requests that approval be given to the setting up of a Planning Group whose purpose will be:

1. To investigate the particular cultural and educational needs of the children in the public and non-public schools of the City of Cambridge.
2. To expedite appropriate action to be taken in regards to these needs.
3. To contact and work with the cooperating agencies that are of necessity to be involved in these efforts of program development, evaluation and coordination. (HGSE, Cambridge Economic Opportunity Committee, etc.)

Title III of the new Elementary and Secondary Education Act is addressed directly to that problem, by providing funds for local educational agencies to participate actively in educational programs of an exemplary or innovative nature. It is intended to stimulate local communities to transfer beneficial results from the laboratory to the classroom.

The Federal Advisory Committee, recognizing that many loca cation agencies will require support for study of need, the obser of new practices and the review of pertinent research, has deci place high priority during the first year of the program on appli for Planning Grants.

John M. Tobi
Superintendent of S

A Proposal for a Planning Grant Elementary and Secondary Education Act of 1965 Section 301 through 308 Public Law 89-10

Submitted by

Cambridge School Department

Cambridge, Massachusetts

Section 1: Abstract

This is a proposal to establish a planning staff and advisory co aid the Cambridge Public School System in determining how best participate in the Title III (Public Law 89-10) programs of th Office of Education. Although application is currently made by bridge alone, it is the intention of the applicant to consult with systems in neighboring cities and towns to determine if joint pr are possible and desirable.

t will be the task of the planning staff and Advisory Council to
ly both the educational needs of Cambridge, and the unique cultural
educational resources of its environs. The staff and the Council will
further charged with recommending to the Superintendent exemp-
and innovative projects which meet specific needs of the City's
dren by linking with the schools a variety of educational and
ural organizations. Such proposals having been approved by the
ool Committee, the staff and Council will develop operational
posals for submission to USOE.

professionally qualified staff of three full-time persons will be
d as soon as the present proposal is approved. Members of the
paid) Advisory Council will be chosen in November and Decem-
1965. The professional staff will report regularly to the Council
, under its direction, conduct interviews, visit exemplary programs
where, and hold meetings and conferences of local people and
side consultants.

t is the intention of the applicant to develop, with Title III monies,
grams which at once are exemplary, innovative, and meet clearly
l needs through the mobilization of local resources.

list of the educational and cultural agencies which will participate
he planning is to be found in Section 4 of this application.

ction 2: *Purpose of the Planning Grant*

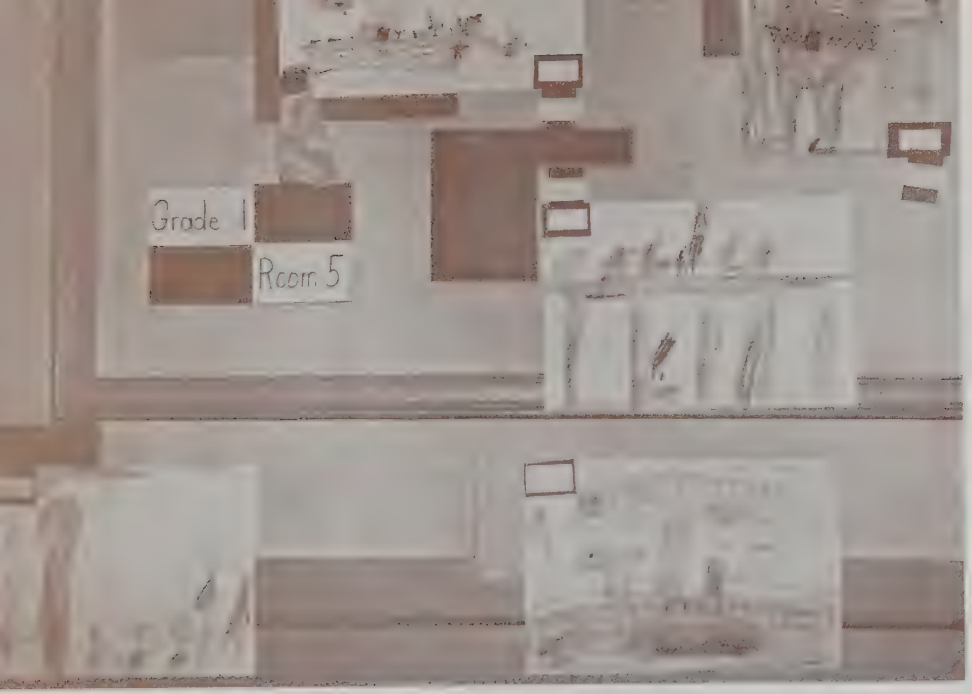
The broad purpose of the planning grant is the provision of addi-
al resources to the Cambridge Public Schools so that imaginative
nning for Title III projects may go forward. There is currently in
nbridge a wide variety of proposals for expanding the educational
ices available to the children of the City; these proposals have
e from within the School Department, from the School Committee,
n neighborhood organizations and parent-teacher groups, from the
nbridge Economic Opportunity Committee, and from many other
ces.

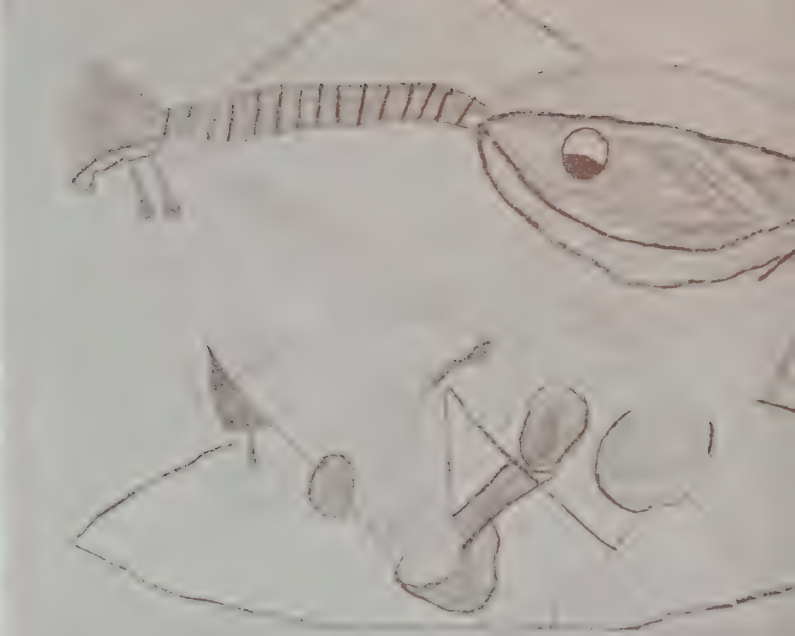
ome of these proposals may perhaps be financed out of regular
ool funds. *Others* might better be supported through the various
grams of Federal assistance: the several Titles of Public Law 89-10,
several Titles of the NDEA, or the various programs of the Office of Economic Opportunity. *Some,* perhaps, after sober reflection, should be retired from active consideration. But *still others,* which meet demonstrated local needs and in which a variety of community resources can be brought to bear in novel fashions, might best be funded through Title III.

The applicant is aware that projects to be funded under Title III must be both "exemplary" and "innovative" in nature. It is confident that it can satisfy these criteria for two different reasons. First, the Cambridge Public Schools have an interest in, and a history of, sponsoring projects of an innovative nature. The Rindge Technical School, for example, with its emphasis on sound preparation in academic fundamentals, the maintenance of both "college" and "non-college" tracks, and the avoidance of premature occupational specialization, for many decades pioneered in providing a type of "technical" education which only recently has become the dominant pattern for technical or vocational schooling across the nation. Cambridge, well before many other local school systems, set up "exemplary" programs for the gifted, for the mentally retarded, for the teaching of foreign languages in the elementary schools. It was one of the first local systems to use undergraduate "teacher aides" in its classrooms, and has participated in several ventures in the teaching of English to foreign-language-speaking children. For thirty or forty years, it has quietly sponsored one of the most successful racially integrated elementary schools in the Northeast.

Second, in and around Cambridge exist some of the nation's most prestigious and strongest educational and cultural institutions. There are internationally known universities; celebrated orchestras, museums, and scientific organizations; several large, non-profit curriculum development organizations; in their formative stages, both a Research and Development Center and a Regional Educational Laboratory; one of the nation's strongest Catholic diocesan school systems; a large number of the nation's top-ranking independent schools, several located within Cambridge, and numerous other resources.

Preliminary discussions have been held with many of these institutions. Virtually all have indicated a willingness to discuss potential cooperative Title III projects.


Grade 1
Room 5



n addition to the nationally known institutions, Cambridge possesses ge number of strong local organizations, public and private, serving ous sectors of the community, which also are potential sources of ngth. Such organizations exist in the fields of public health, mental th, family counseling, social work, the "War against Poverty, etc. se organizations may make major contributions to particular Title rojects.

hus, it will be the main task of the persons engaged in Title III ning in Cambridge to organize an appropriate combination of school outside resources in order to deal imaginatively with one or more e City's most important educational problems.

further complication of this assignment will be the selection of a ct or projects which can be truly *exemplary*, as well as *innovative;* is, projects which (once underway) will be convincing demonstra- to the nation of what is possible when a city system, the cultural educational resources of the community, and the Federal Govern- t combine their efforts.

his, then, is the basic objective of the planning grant. There are additional subsidiary ones.

rst, it will be the task of the planning personnel to sort from the us proposals which have already accumulated, or which will be itted in the next months, those which are appropriate for Title III ideration, and those which are appropriate for consideration under Federal programs. The Title III planning group will not work out osals to other Federal programs, but certainly the discussion and sis which each idea will undergo before being assigned to one or her category will be of value to School Department officials respon- for taking the next steps toward obtaining funding outside of III.

cond, the planning staff and Advisory Council will investigate the bility that other communities bordering on Cambridge, and to the h of the Charles River, might join with this City in making appli- n for Title III operational grants. Communities which have been tioned include Somerville, Medford, Chelsea, Malden, and Arling- It is not known whether any of these communities have been considering Title III projects. If awarded the planning grant requested in this application, Cambridge will take the lead in attempting to further the declared regional coordination policy of the USOE. It will do so with the knowledge that joint efforts may in the long run bring a wider variety of greater benefits to all the communities; on the other hand, it will act recognizing that coordination of activities among these towns and cities is a new venture, bringing together a group of traditionally independent entities. What the outcome will be, the applicant dare not prophesy.

Following is a *partial* list of projects which have *already* been put forward to the Cambridge School Department — all on an informal, usually oral, basis — for consideration as Title III enterprises:

1. A model pre-school program, embodying a variety of the best pre-school curricula and practices, and including full medical, dental, psychiatric, and optometric services.
2. An extensive program of instruction in music: choral singing, instruments, musical history, music appreciation. The vigorous musical resources of Greater Boston would be deeply involved.
3. A school-home liaison program, with the provision of a social worker for each elementary school, and the addition of medical, dental, psychiatric, and optometric specialists to the School Department staff, as needed, to reach *all* children.
4. The provision of after-school study centers in neighborhoods where such services would be in demand. Such centers would be set up in cooperation with existing settlement houses, and employ numerous tutors from nearby universities to help the children with their work.
5. The institution of regular classes for drop-outs who wish to complete their high school education, but who cannot for a variety of reasons return to regular classes. This would involve special scheduling, and perhaps a special staff.
6. The reorganization and operation, on an exemplary basis, of a model, integrated elementary school. This project would add a number of instructional "extras" to an existing, successful school scheduled to move into a new building in 1967.

7. A model program of public-parochial-private school cooperation, wherein special authorized services (such as science instruction by well qualified teachers) would be made available to all institutions participating.
8. The development of the Summer School of the Cambridge Public Schools so that educationally retarded, low income youths could attend, at little or no financial disadvantage, to receive remedial instruction appropriate to their needs.

The above is a partial list, comprising those items thus far most forcefully proposed and most easily compressed into three or four lines. Other suggestions undoubtedly will be forwarded and will be considered.

It is the intention of the applicant to employ a professional staff of three full-time persons to carry out this planning. A tentative search for personnel will begin as soon as this application is submitted. An Advisory Council, drawn from those organizations listed in *Section 4* which commit themselves to participation in the planning, will be appointed by the Superintendent of Schools; hopefully, a core of Council members will be assembled in November and December, 1965, and the Council can begin its formal activities early in January.

The professional staff will serve as the agents and executives of the Council, carrying out investigations assigned to it by the Council, or approved by the Council upon the initiative of the professional staff. The Council, in turn, will report its deliberations and recommendations to the Superintendent and to the School Committee. Upon the final approval by the School Committee of Council recommendations for action under Title III, the professional staff will prepare one or more proposals for operational grants and submit them to Washington.

The duration of the planning grant will be six months. Activities of staff and Council will begin on or before January 1, 1966; applications for operational grants will be completed approved by the School Committee, and submitted to Washington by April 4, 1966, the last submission on date for fiscal 1966. Staff members will be retained through May, 1966, to allow for a smooth transition into the operational phase which, according to USOE guidelines, will begin by June 1, 1966. Professional Staff will not be assured of further employ after May 31, 1966, unless they are suitably qualified to participa the specific Title III project(s) selected by Cambridge and appr by USOE. The Advisory Council will, however, be retained in a appropriately reconstituted to reflect the nature of the projec underway.

The Advisory Council, through its professional staff, will be powered to survey the existing educational resources in Cambridg stimulate, receive, and review formal and informal proposals for a under Title III; to explore and formalize the willingness of ed tional and cultural agencies outside of the Cambridge Public Sc to join with the schools in running Title III projects; to conduct ability studies and detailed examinations of particular needs for benefit of the Advisory Council; to undertake negotiations with ne boring communities to determine their interest in joining Cambridg Title III ventures and planning; to engage expert consultants to ad on particular points of policy or procedure; to visit exemplary, n or otherwise relevant educational projects in other parts of the Un States which have a bearing on projects proposed for Cambridg prepare a formal set of recommendations to the Superintendent action under Title III, which recommendations are to be subm to the Superintendent by March 1, 1966, thus allowing the School C mittee at least two regular meetings at which to consider them; an prepare for submission to Washington formal application(s) fo erational projects under Title III. Also, in pursuance of the a duties, the Advisory Council and its staff will make recommenda to the Superintendent regarding the disposition of projects prese to it, but rejected, for Title III funding.

Section 3: Personnel

The composition of the Advisory Council has already been descr During the planning phase, it may have as many as twenty-five m bers. Once the operational phase has been attained, its membership drop, to reflect the agencies actually participating in the parti project(s). Agencies from which Council members will be drawn

listed in *Section 4*. The Advisory Council will meet at least twice monthly during the planning phase. Its members will serve on an unpaid basis.

A staff of three full-time professionals is anticipated. The Director will have received a doctorate in education or a related field, and/or its equivalent in the administration and evaluation of innovative and exemplary programs in education. He will be, in other words, a man of considerable experience in the planning, execution, and analysis of new school programs. He will be employed full-time for a six-month period, at the maximum rate of $15,000 per year, or $7500 for the six-month period.

The Assistant Director will specialize in the preparation of the many written documents required in the planning. He will write staff reports to the Advisory Committee and Superintendent; he will analyze and re-write particular proposals; he will be largely responsible for the exact wording of the Council's final report to the School Committee; he will produce the applications for operational grants. He will have received, or be close to, the doctorate in education; he will have demonstrated competence in writing and/or journalism. He will be employed full-time for a six-month period, at the maximum rate of $9000 per year, or $4500 for the six-month period.

The Community Liaison Agent will carry out most of his work in the field. It will be his task to identify and clarify the types of support and cooperation present within Cambridge, and in the surrounding towns and cities. He must know Cambridge, its neighbors, and their resources well, and (if possible) command a wide circle of pre-existing professional acquaintances and contacts. He will have received at least his Master's in education or a related field; ideally, he will have lived and/or worked in the Cambridge area for a good many years. He will be employed full-time for a six-month period, at the maximum rate of $9000 per year, or $4500 for the six-month period.

In addition to these professional appointments, a secretary-bookkeeper and a clerk-typist will be hired for a six-months period, full-time. These persons will be paid at appropriate Civil Service rates.

Section 4: Facilities and Services

As stated previously, the minimal area to be served is the City Cambridge.

Cambridge is a unique city. It is one of the most important manu turing centers in New England; it abounds with institutions of hi learning and is crowded with students and visitors from all over world. It is a haven for those newly arrived in the country. The p lation averages about 100,000 people of a heterogeneous grou The foreign born averages approximately 15% of the population non-whites comprise 6.9%. The average number of children for w families is 1.0 and for non-white families, 1.2.

Cambridge has a history and tradition equalled by few Amer communities. The present policies and outlook of the city are not and it leads in technology and research that look to the future. F deep roots and the cross fertilization of ideas from many sources, C bridge derives its vitality.

It is with these thoughts in mind, and a continual striving for be ment in its educational programs, serving a public and non-pu school population of over 16,000 students that the initiative is b taken in submitting this planning grant for an entitlement under III of the Elementary and Secondary Education Act (P.L. 89-

Efforts will be made to extend the area served to include a numb the small urban centers immediately to the north of Boston.

The Cambridge Public Schools, in collaboration with Harvard versity, is a co-sponsor of the Center for Research and Develop on Educational Differences. The resources of this Center will be a able on a (free) consultative basis to the professional staff and Adv Council. The exact nature of operational projects decided upon wil termine the extent of the Research and Development Center's conti collaboration with the Cambridge Schools within the Title III prog During the initial phase, the Center will do everything it is requ to do to facilitate the planning.

The following non-profit educational and cultural agencies seem very ely to be willing to work with Cambridge at least during the planning ase of a Title III project. Many (but not all) have already been proached, and signified their willingness.

ist of Potential Participating Agencies

search and Development Center — HGSE
mbridge Economic Opportunity Committee
sley College and Lesley-Ellis School
mbridge Museum of Science
mbridge Civic Orchestra
mbridge Parochial Schools
on-Profit Private Schools
ursery Schools
ilips Brooks House of Harvard University
assachusetts Institute of Technology
iot Pearson Department of Nursery Education — Tufts University
heelock College
epartment of Special Education — Boston University
ston College School of Education
ducational Services Inc.
mbridge Guidance Center
mbridge City Hospital (Department of Pediatrics)
mbridge Department of Welfare
mbridge Department of Public Health
liance of Cambridge Settlement Houses
mbridge Community Services
rist Child House
mbridge Family Society
tholic Charitable Bureau
mbridge Housing Authority

Basketball Championship Ceremony

Physical Education / Athletics and the Community

Athletics

Perhaps no school sponsored subject has a more immediate and visi impact upon the community than Physical Education/Athletics as i presented by the Cambridge School Department.

From early Fall to late Spring it is everywhere obvious in the co munity, and it has been taking place for an astonishing seventy-ei years.

Formal athletic rivalry began, in football, between the two gr public high schools in 1888. As new sports became of major inter they were added to the athletic program and took their places in community view.

In 1922 a Director of Physical Education and Athletics was appoin and immediately thereafter a comprehensive athletic program was in duced at the elementary level.

It was designed to complement, with appropriate modifications, widely varied high school program. Its success at interschool levels perhaps be appreciated best by citing the 1965 participating figures.

The Athletic program for last year had 2585 boys and girls partici ing on 122 athletic teams. A breakdown shows 1169 elementary sch boys playing on the various school teams, while 943 boys and 473 g participated in high school athletics.

ll of these school children performed for scores of thousands of nbers of the community, all were taught and instructed by teachers hin the Physical Education/Athletic programs of the School Depart-nt, and all will carry these learned skills into the community when r formal schooling is over.

hysical Education: Elementary and igh School Level

hysical Education is a specific school subject. Its aim and purpose two-fold:

. To provide guidance and instruction to meet the needs of pupils ll levels in developing their physical efficiency and recreational skills.
. To provide for maximum growth physically, mentally, emotion-, and socially.

n the elementary schools the Physical Education Program includes ssroom instruction, gymnasium classes, and posture corrective classes. The program is comprehensive, balanced, and progressively arranged. activities are suitable for the needs, interests, and physical condition he pupils.

n the primary grades — 1 to 3 — the classroom teacher conducts ly morning and afternoon programs of 15 minutes each. Each class-m is visited every two weeks by the physical education teacher in er to teach new material and to help the classroom teacher plan l evaluate the material. The program content includes singing nes, creative rhythms, folk dances, fundamentals of movement, nts, low organization games, fundamental skills, and posture ivities.

The elementary grades — 4 to 8 — have a daily 20 minute program ich includes exercises for body mechanics, self testing activities, nts, sports skills, fitness exercises, rhythmical activities, and games.

In the four new elementary schools, classes meet for 50 minutes ice weekly. Physical Education instructors conduct classes in the mnasiums and outdoor play areas. The basic program provides portunities to participate in tumbling, apparatus, track and field events, team sports, individual and dual activities, rhythmical activities, posture activities, fitness exercises, and sports skills.

In four other elementary schools where gymnasiums have only one teaching station, one 50 minute class is held weekly, and appropriate programs are conducted. These schools also have physical education in the classrooms.

Posture corrective programs are conducted in grades four to eight. When parental permission is granted, the Physical Education teacher instructs pupils in a special exercise program for their individual needs.

The high school program, of course, has been in operation for many years. It consists of much the same program — naturally, of a more progressive nature — as that in the elementary schools.

All Freshman and Sophomore classes are required to take Physical Education unless excused by a physician. The course consists of two forty-four minute periods per week. As in the elementary schools, Physical Education carries formal course credit.

The Physical Education and Athletic Policies are designed to:

1. Provide activity for all rather than activity for a few.
2. Provide a sport for every boy and girl.
3. Provide opportunities for the well-rounded pupil who is skilled in many activities, strong in endurance, and possessed of skill and agility.

It is thus that the Physical Education Program, an integral part of the school curriculum, accommodates Athletics in the total educational pattern. The one provides the skills to foster and maintain the other. Good physical condition and a healthy and constructive attitude toward athletics are vital results of the dual program.

Championship Finals

Music and the Community

While Music is a graded subject at both the elementary and secondary level, it is certainly not confined to the classroom or music practice room.

In numerous instances the community thrills to and enjoys the efforts of young musicians sponsored by the Cambridge Public Schools. Specifically, interscholastic athletic contests often provide the opportunities for the Cambridge High School Band to perform for the community, while Elementary School Orchestras frequently present recitals attended by warmly appreciative audiences of mothers and fathers.

The High School Instrumental Group provides musical accompaniment to the plays presented by the Cambridge High and Latin School Drama Club, while choral and orchestral works and band concerts are offered on many occasions to parents and the general public. Indeed, one of the main aims of music teaching within the Music Department is to foster in the community a growing awareness of the development of this sublime talent in our young.

The following report by the Music Department of the Cambridge School Department provides an excellent summary of the extensive activities of the musical groups and community involvement.

Annual Report of the Music Department

The Music Department of the Cambridge Public Schools has had a year of vigorous activity and progress. A major step forward in the elementary school program has been the beginning of direct instruction of music to grades seven and eight by specialized music teachers.

Our teachers are making effective use of the new curriculum guides that were distributed last year. These guides are being developed and extended to help the teacher give the children a rich and varied program of music education.

The listening program is being expanded through the use of audio-visual aids such as motion pictures, phonograph records, auditorium concerts, and music assemblies. Before June of this year new record libraries for the elementary schools will have been purchased. This will give each elementary school a substantial library of records that

Girls Vocational Singfest

ill serve as a source of listening units and a core around which a ntinuous program of record purchases will occur each year. New ms for instruction have been purchased for the benefit of the children d for teachers in future music workshops in music education.

New rhythm band equipment has been purchased for grades I and . Some of this equipment has been distributed to the various schools d the rest will be shortly.

A great deal of work has been done this year with the exceptional ildren. The Director, the music teachers and teachers of the special sses have been working to develop a program in music that will meet e needs of these young people. A curriculum is now being written for ese children that we hope will bring joy and happiness to them.

The orchestral program in the elementary schools has been expanded include two more orchestras, bringing the total in the city school stem to nine. It is hoped that within a year there will be an chestra in each elementary school building.

The music program at the secondary school level has continued to pand. A general music program dealing with all aspects of music offered to Freshmen at Cambridge High and Latin School. These me students, if they wish, can continue with more specialized pro-ams of music education in the Sophomore, Junior and Senior years. cause of scheduling difficulties a more general music program is fered at Rindge. The instrumental program at the High School level growing each year.

About one hundred books ranging from music dictionaries to books every aspect of music have been placed in the Cambridge High d Latin School Library. An extensive stereophonic record library and ur stereophonic record machines have also been placed in this brary. These records are being used by the Music Department in its ogram and by the students under supervision within the library.

The school and instrumental libraries of Music have also been con-derably enlarged this year. Within five years we will have an exten-e library of instrumental and choral music.

Boys and girls from both the elementary and high schools have at-ded the Youth Concerts at Symphony Hall, operas sponsored by e Boston Opera Group, and a concert put on by the A. Lincoln Filene Foundation at Symphony Hall. Trips to these events were sponsored by the Music Department.

Students have been sent to participate in the Northeastern District Festival at Beverly, Mass. and in the Youth Symphony Orchestra. The music drama, *Camelot,* was put on this year in conjunction with the Drama Department and was an outstanding success.

Next year the Director hopes that it will be possible to establish an inter-city elementary choral group and orchestra that will give large numbers of pupils opportunities for rich musical experiences at a high level of achievement. It is also the plan of the Music Department to expand the present program at Rindge by developing a choir and by extending the instrumental department.

The Music Department keeps track of the latest text books published, and builds libraries of this material. Some of these books could be used profitably in the schools in future development programs.

Many high schools offer courses in theoretical subjects in music. Eventually we should do the same.

The Director, after attending workshops put on by the Massachusetts Music Educators Association at the University of Massachusetts, believes that we are abreast of modern developments in Music Education. Our curriculum outline and units have been prepared with the idea that they must be continuously changed and improved to meet a constantly growing and changing program.

The Music Department has given a total of thirty-nine choral, orchestral, and band concerts during the year within the school system, for the student body, parents, and the public in general.

Standardized Testing

Current Guidance Practices and the Community

Barbara S. graduated in 1965 but returned to Cambridge High & Latin School for a post-graduate course because she thought she wanted to go to college. Discouragement set in early when she lea the college-preparatory course work, in which she really had interest, might extend over the next three to four years. She saw counselor who discovered Barbara's problem to be one of fuzzy c planning. She wanted to become a medical secretary. She was cap prepared in typing, stenography, and other office skills. A telep call to the director of admissions of a two-year college offeri

gree in medical-secretarial work to discuss Barbara's previously ex-
lent course work was followed by a personal interview with the
missions officer. Within one week of receipt of her school transcript
l teacher recommendations she was accepted for admission. Today,
is happily pursuing college level course work in her chosen career
l working part-time at a physician's office. She might have wasted
ee to four years of her earning life, plus experiencing untold frus-
ion, possibly failure, had she not taken the time to confer with
counselor.

ohn L. suffered a broken leg, the result of an automobile accident
he beginning of his senior year. Hospitalized and unable to attend
ular classes, it appeared he would be unable to graduate with his
ss. However, when his counselor learned of John's situation, he
nediately contacted the Bureau of Pupil Services, which, equipped
h a copy of the student's required courses, as drawn up by the
nselor, provided John with a visiting teacher. John can look for-
rd to graduating with his class this June.

Robert D., age twenty-two, returned to high school in order to earn
diploma after serving six years in the military service. He had been
school drop-out at the end of his freshman year. His counselor re-
wed his abbreviated high school record, discussed with him his
litary experiences, and recommended the Division of University
tension of the State Department of Education, where Bob took a
cial high school equivalency test. Shortly after, he received his
loma. Today, he is employed as a television technician, the result
his military experience plus the qualifying high school diploma
uired by his employer.

Helping the student to see through himself in order to see himself
ough is the axiom on which the Guidance and Counseling program
the Bureau of Pupil Services, operates. Counseling is the "open
ame" to the individual pupil in order to understand himself and the
rld around him. This complex process is done by a staff of coun-
ors that begins assisting students in the 7th grade and continues
ough to graduation from high school. It is not uncommon for
Cambridge students, now in college or employed, to contact a high school counselor for advice concerning employment trends, opportunities for occupational specialization, or even additional education, such as the selection of a trade school or college. It has been found that former pupils prefer to enlist the assistance of the counselor because pupils know the counselor respects them as persons. Equally, the counselor is anxious to take advantage of every opportunity to assist his client become increasingly responsible for himself.

Counseling is the key to the guidance program and this complex undertaking, which requires special professional knowledge and skills, is conducted at grades 7 and 8 in the elementary schools and at Rindge Technical School, Cambridge High & Latin School, and in the Boys and Girls Vocational Schools. Well recognized for its long history of guidance oriented services to students, this year marked the beginning of the first formal and intensive program of counseling and guidance. Guidance specialists, three elementary school counselors and six high school personnel, provide intensive and extensive personal social, occupational, and educational counseling to over 4500 youth in the Cambridge school system. Pupils are encouraged to see their counselor whether worried about a grade, college, or a future job.

At the high school level, each counselor has approximately 400 counselees whom he counsels through the four years, starting at grade nine and seeing through to high school graduation, including college and occupational placement upon graduation. Thus, the counselor becomes keenly aware of the abilities and interests of his students and is better equipped to assist the student to resolve his problems, place him in a college or a job, and comment concerning the pupil's learning needs. Knowing the total school picture, the articulatory process from grades 9 through 12, and above all, being knowledgeable concerning his charges, the counselor is better able to assist the citizen of tomorrow.

In order to assist tomorrow's citizen make wise decisions concerning choice of occupation or college, a Guidance Information Center was established in early November, 1965, at the Cambridge High & Latin

School. Representatives from neighboring and out-of-state colleges and universities were invited to contribute information that would be of assistance to the prospective college-bound student.

Statistical profiles of freshmen classes are being compiled and relevant admission information passed on from key college administrative personnel. Scholarship and financial aid data are also included, as it has been found that many students capable of continuing their education beyond high school oftentimes falter and leave the learning environment because of lack of funds. This year an all-out effort has been made to enlist the aid of local and national scholarship agencies to the end that each one is given attention either via the public address system or in the monthly guidance "Newsletter" edited and published by guidance personnel. Some of the more recent scholarship announcements for which there are a sizable number of candidates include The Kiwanis Club, The National Association for the Advancement of Colored People, including the local Boston group, the Italian Women's Auxiliary Organization, and the AFL-CIO Scholarship Program, the latter alone providing $7500. worth of financial aid to young men and women in the State of Massachusetts. Information concerning college loans from federal, religious, labor and service organizations, including medical and nursing scholarships, is also included. At this writing, still considerably early for the return of scholarship awards and grants, almost $47,000 in scholarships and financial aid has been received by seniors.

From the national and state labor bureaus there are job information and occupational statistics concerning professional, semi-professional, skilled and unskilled jobs, and up-to-date military information from the various branches of the military services, in the Guidance Information Center. Students are free to use the Center before and after school, and during their regularly scheduled study periods. A professional counselor is on hand at all times in order to assist students or to answer their questions.

The Guidance Division and the Bureau of Pupil Services work closely with the Cambridge Neighborhood Youth Corp program by identifying potential drop-outs, pupils, who upon reaching age sixte leave school for the purpose of earning money. This is done by viting their attention to the after-school and summer programs enac under the Economic Opportunity Act-Title 1B — Youth Programs, starting the screening procedures necessary under federal regulations enrollment in the program.

Testing is but one aspect of the Guidance Service, and the Guida Staff, trained to interpret and use the data in order to assist the stud administers tests for specific reasons only. Testing programs are plan around the pupils' needs, the teachers' and counselors' questions ab their pupils, to improve classroom learning or to aid parents in un standing what to expect from their children. Pupils are infor periodically of their progress, the principal purpose of test discus being to improve pupils' understanding of themselves.

Anticipating increased competition for the dwindling number college places, representatives from Massachusetts and out-of-state leges are encouraged to visit the high schools and discuss with stud their respective college programs, admission policies, and opportuni Simultaneously, this year saw the first of regularly scheduled gr guidance programs for the juniors of Cambridge High & Latin Sch designed to enrich their knowledge concerning the total college pic and in order to answer individual questions regarding spe institutions.

In essence, guidance attempts to deal with the problems experier by students. Oftentimes, these problems are knotty and comp requiring the cooperative efforts of the counselor and his colleague order to assist the student in developing fully his personal resources. this end the Guidance Division of the Bureau of Pupil Services is c mitted — the needs and problems of the students are of cardinal prio When a young person experiences problems he is unable to cope w it is absolutely essential that he realize there is someone in the sc interested in him and to whom he can go for help in solving his prob It is only by such assistance in solving his immediate problems tha can mature and develop his personal resources for solving future p lems when a member of the greater community.

aemakers' Course

A Course in Homemaking

The Schools Work with the Community

During the Fall of 1965 a training program for Homemakers was conducted at the Vocational School for Girls.

The ten week course consisted of three hundred hours of instruction and practice in performing homemaking tasks in homes during the illness or absence of the mother. The students were trained to assume wage-earning responsibilities in this area. At the completion of the first training session, eleven women were certified.

Instruction in Foods, Clothing, First Aid, and Child Care was given during each of the ten weeks. Facilities at the Vocational School for Girls provided opportunities for class discussion and the use of audio-visual materials related to the homemaking skills.

Three hours daily were devoted to Foods. Family food needs as related to good health and proper nutrition were the bases for planning meals. Each class member assisted daily in the preparation of attractive and nutritious meals. Each student extended her knowledge of and experiences with the use of modern cooking methods, equipment, and utensils for food preparation and storage. Emphasis was placed on the careful selection of readily available and inexpensive foods which could be prepared easily. An understanding and appreciation of food customs and eating habits was gained by each student. Thus, all management skills related to meal planning, shopping or marketing, and food preparation were stressed.

Clothing care and repair included thorough training in the utilization of the sewing machine, simple sewing techniques, and appropriate methods of clothing care.

Housekeeping practices, using recently developed materials and equipment, were an important part of the Homemakers course. Special attention was given to practices concerned with sanitation, care of electrical equipment, and furniture.

Current methods of baby care and first aid were demonstrated and practiced. These prepared the students for employment in homes where there are children.

An interesting and highly functional course lesson involved the teaching of suitable leisure-time activities for young children and elderly persons who might be in the care of a Certified Homemaker. Appropriate leisure-time pursuits such as games, handiwork, and the making of novelties were presented. At the same time, a list of other leisure-time activities was compiled and will form the basis for an expansion of this aspect of the ten week program in future classes.

The success of the ten week homemakers course for women indicates the careful thinking that went into this innovative program. The project was a completely cooperative venture which involved the Cambridge School Department, the Vocational Department of the Massachusetts State Department of Education, the Massachusetts Employment Agency, and the Work Experience section of the Office of Economic Opportunity.

The Cambridge School Department provided the necessary school facilities and equipment, supplemented by a grant of funds available through the Federal Manpower Development Training Act. The State Department of Education lent support in areas of the curriculum devised for the program, and the Work Experience section of the OEO provided collateral support in several areas.

The program was the first of its kind involving a multitude of agencies in Massachusetts under the provisions of the Manpower Development Training Act, and is expected to be the widely copied forerunner of such programs in many communities.

Operation Headstart: a Community Endeavor

The Cambridge Economic Opportunity Committee met first in
December of 1964. By the first of spring a number of programs
signed to benefit the citizens of Cambridge had been proposed. H
on the list of proposals was the early childhood education plan wh
came to be referred to nationally as *Head Start*. The aim of Head S
was to provide new, beneficial, and broadening experiences for li
folk of families residing in sections of the city sometimes considered
be underprivileged. The youngsters to be involved in the prog
were those who would be entering school for the first time, ei
kindergarten or first grade, in the fall of 1965.

Naturally, the Cambridge School Department was interested in
program dealing with the development and well-being of future pu
of its schools. The Cambridge School Committee voted to estab
centers, to procure teachers, and to provide materials to make
project operative in four elementary schools of the city. The sch
selected were the Fitzgerald, Harrington, Houghton, and Roberts

It seems safe to say that no group of children, approximately
had so much opportunity for concentrated attention directed tov
giving every member of it a happy and successful school beginn
Each class in the summer program had a head teacher, a teacher a
a case aide, and a volunteer aide. The teachers, chosen from
Cambridge School Department staff, all had nursery, kindergarten
early childhood classroom experience. The teacher aides were p
pective Cambridge teachers or college students majoring in the ed
tion of the pre-school child. The case aides, who furnished and m
tained a contact between home and school, were neighborhood moth
The volunteer aides were high school girls selected from the
served. From the above it may be seen that there were occasion
every session when the ratio between instructors and aides to chil

ticipating was about one to three or one to four — a somewhat ideal uation to accomplish the goals of the program.

What kinds of activity would have been found on a visit to one of se summer centers? Any day some or all of the following took ce: singing, story telling, crayoning, indoor and outdoor games, zzle making, finger painting, working with play dough, building with nstruction blocks, using water play equipment, and studying the wth of hamsters, guinea pigs, and chickens. Trips, within and with- the neighborhood, were part of each child's summer experience. cally classes visited bakeries, fire houses, post offices, and the ob- vation tower of the tallest building in Cambridge. Outside the area he children travelled to the Children's Museum, Jordan's Magic rdens, Nahant Beach, and the East Boston Airport.

The preceding list of activities might lead to the assumption that ly the social and educational aspects of the development of the ldren were stressed. This assumption would be far from reality, the physical and mental growth of every child was a matter of erest, concern, and study. All children enrolled in the program d more medical, psychological, and sociological attention than chil- n ordinarily receive in the span of their school experience. Every ld had a complete physical examination by one of a team of com- ent pediatricians; every child had dental prophylaxis plus a fluoride plication; every child had vision, hearing, and speech tests; every ld was observed in the classroom situation by both social services presentatives and representatives of the psychological and psychiatric isions of the Cambridge Mental Health Association. In whatever ase of child development a weakness was noted, action by the propriate agency was recommended and followed up.

The above observations are meant to indicate the wide scope of the erests and activities that centered about all children who were part the Cambridge School Department's summer of 1965 program ead Start, and to point out that as a result of much cooperation from ny agencies the children participating received what the program s meant to provide — a real Head Start.

His First Audience

Hey! I'm Missing a Part

Report on the Rindge Technical Institute

In September, 1965, the Rindge Technical Institute became a reality. The course in Electronic Technology began with fifteen students and four part-time instructors. The students came to the school with widely varying backgrounds and the immediate problem was to narrow this broad variance in order to give each individual in the class a fair chance of success. It is to the credit of the instructors that through individual instruction, both in class and outside of class, this difficulty was resolved.

The Advisory Committee for the Rindge Technical School, on the occasion of its regular visitation, felt that the program of studies and the quality of instruction indicated a striving for excellence in training.

In addition to the present course in Electronic Technology, the Cambridge School Department plans to establish a second post-high school course in Instrumentation Technology beginning in September, 1966. The purpose of this program is to train persons to become technicians in the fields of electronics and instrumentation. Opportunities abound for people seeking careers in these areas of employment. In addition, this training will enable one to take advantage of the special training and the retraining which is becoming an accepted condition of employment in the rapidly changing industrial world.

Each class will have openings for twenty-five students. Enrollment is open to high school graduates who have completed the following requirements:

1. Four years of English
2. Three years of mathematics
3. Two units in science
4. Two units in history

Each applicant will be expected to take a qualifying examination which will have sections on English, Mathematics, Science, and Mechanical Drawing.

Both courses will be in session for thirty-six weeks each year f two years. This will provide 1110 hours per year of training in th student's choice of subject matter. The school day will run fro 10:30 A.M. until 5:15 P.M. — Monday through Friday. A period forty-five minutes will be allowed for lunch. It is expected that a st dent will occupy his time outside the classroom with a program continuing reading and study.

Statistical Tables

CAMBRIDGE

HISTORIC EDUCATIONAL INDUSTRIAL

Population: 100,000 Area: 6¼ sq. miles

Government: City Manager

CAMBRIDGE PUBLIC SCHOOLS

Through its classrooms, playgrounds, and clinics, where dedicated men and women are employing the best modern equipment and methods the Cambridge School System works for all its citizens, young and old.

The Schools:

1. Putnam School
2. Thorndike School
3. Harrington School
4. Fletcher School
5. Roberts School
6. Webster School
7. Morse School
8. Houghton School
9. Longfellow School
10. Agassiz School
11. Peabody School
12. Lincoln School
13. Fitzgerald School
14. Russell School
15. Haggerty School
16. High and Latin
17. Rindge Technical Vocational School for Boys
18. Vocational School for Girls

FRESH POND
FRESH POND
CONCORD
MASSACHUSETTS
HARVEY
CLIFTON
JACKSON
CLAY
MONTGOMERY
SARGENT
CEDAR
HOLLIS
CHEVERUS
CRESCENT
CHARLES
CHAUNCY
CHEMICAL
CHEMICAL
CHEMICAL

Cambridge

CHARLES RIVER
CHARLES RIVER
BROADWAY
GREEN
MAIN
MASS. AVE.
MEMORIAL DRIVE
1
2
3
4
5
6
7
8
9
10
16
17

Ages

DISTRIBUTION OF PUPILS BY AGE AND GRADE

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21 Over 21	Totals
Kdgn.	M	250	342	17																609
	F	259	319	8																586
I	M		130	288	61	5	2													486
	F		148	250	33	2														433
II	M			111	252	76	8													447
	F			115	269	49	5	1												439
III	M				91	246	81	21	4											443
	F				121	244	57	5	3											430
IV	M				2	88	241	99	15	2	1									448
	F					119	206	49	15	2										391
V	M					1	75	213	74	24	6		1							394
	F						104	189	64	13	1									371
VI	M							67	175	84	27	9	1							363
	F							92	172	64	17	4								349
VII	M								80	173	81	20	3		1					358
	F							6	98	156	57	14	8	1						340
VIII	M								3	55	167	67	24	4						320
	F								14	76	181	44	17	4						336
IX	M									4	125	221	78	35	4	1				464
	F										126	187	60	11						388
X	M										1	116	220	103	36	7	1			484
	F											138	160	53	26	2	1			380
XI	M												84	209	80	25	7	1	1	407
	F												118	171	43	8	0	0	1	341
XII	M												1	104	191	82	28	1	1	408
	F													96	163	42	10	1		312
P.G.	M														7	16	2	2	1	28
	F														3	3	1			7
Voc. Schs.	M											22	33	15	3					73
	F											8	16	1		2				27
Ungraded	M			3	3	14	20	19	15	21	19	10	7	2	1					134
	F			3	3	7	16	11	5	10	13	10	3	3		1				85
Totals	M	250	472	419	409	430	427	419	366	359	427	465	452	472	323	131	38	4	3	5,866
	F	259	467	376	426	421	388	353	371	325	395	405	382	340	235	58	12	1	1	5,215
																		Grand Total		11,081

AGE GROUPS

5 years or over and under 7
Boys 891 Girls 843 Total 1,734

7 years or over and under 16
Boys 3,754 Girls 3,466 Total 7,220

Number of Pupils in the Grammar Schools

December, 1965

Grade	Boys	Girls	Total
Eighth	298	295	593
Seventh	338	311	649
Sixth	331	319	650
Fifth	349	348	697
Fourth	405	361	766
Total	1721	1634	3355
Ungraded	137	94	231
Total	1858	1728	3586

Number of Pupils in the Primary Schools

December, 1965

Grade	Boys	Girls	Total
Third	406	369	775
Second	416	400	816
First	447	398	845
Total	1269	1167	2436

Number of Pupils in the Kindergarten

December, 1965

Boys	552
Girls	519
Total	1071

1965 Class Statistics
Enrollment Chart by Grades

October 1, 1965

Grade	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
I	1,014	998	1,046	1,066	1,086	1,102	1,064	1,012	1,020	919
II	871	867	886	887	904	894	943	931	900	886
III	877	821	817	848	851	877	850	887	887	873
IV	896	838	797	822	808	812	809	786	852	839
V	852	858	838	763	822	799	784	766	737	765
VI	660	831	836	817	759	809	769	748	758	712
VII	693	662	791	804	798	746	757	747	701	698
VIII	667	655	635	736	740	720	694	703	738	656
IX	933	796	772	693	887	981	1,000	897	908	852
X	722	805	775	742	661	852	888	903	795	864
XI	477	639	749	724	724	573	727	751	796	748
XII	505	466	549	618	606	541	521	699	721	720
P.G.	29	23	21	15	17	12	20	30	37	35
Ungraded			148	168	126	196	195	227	250	219

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.	Total
High and Latin	612	635	559	505	17	2328
Rindge	229	189	156	216	4	794
Boys' Vocational	Ungraded					70
Girls' Vocational	Ungraded					34

1964-1965

I. Testing Program

1. Group Tests

Reading Readiness (Grade 1)	1,030
Intelligence Tests	
(Grades 2, 5, 8)	2,370
(Grades 11, 12)	882
(Grade 10)	736
Miscellaneous pupils	211
Achievement Tests	
(Grades 3, 4, 5, 6, 7, 8)	4,569
(Grades 9, 10)	881
Total	10,679

2. Individual Tests

Intelligence Tests	393
Achievement Tests	362
Projective Tests	408
Others	33
Total	1,196

1964-1965

II. Psychiatric Clinic

Individual Pupils Referred to Psychiatrist

New Cases Boys...75 Girls...23 Total:

Continued

Cases Boys...23 Girls... 2 Total:

Range

Grade: Kindergarten to Grade 12

Age: 5 years to 17 years

Number of Pupils Seen by Psychiatrist

Boys...98 Girls...25 Total: 1

Number of Sessions with Psychiatrist

Pupils: 145

Parents: 128

Total: 273

Staff Conferences with Psychiatrist.....

There are also numerous telephone discussions and conferences between t staff of the Bureau of Pupil Services and students, teachers, other school pers nel, parents, clinics and agencies.

Psychiatric Clinic

1964-1965

Distribution by Grade

Range: Kindergarten — Grade 12

Grade	K	1	2	3	4	5	6	7	8	9	10	11	12	Special	Jr. Prev.	Voc. Adjustment	Total
Boys	3	8	18	11	12	5	11	2	5	4	2	0	0	5	4	2	6	98
Girls	1	2	3	3	4	2	0	1	2	2	1	1	2	0	0	1	0	25
Total	4	10	21	14	16	7	11	3	7	6	3	1	2	5	4	3	6	123

Distribution by Chronological Age

Range: 5 Years — 17 Years

C.A.	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
Boys	0	8	14	12	16	12	7	8	8	4	7	2	0	98
Girls	1	2	0	5	0	1	5	2	2	1	3	1	2	25
Total	1	10	14	17	16	13	12	10	10	5	10	3	2	123

School Adjustment Counselor Report

1964-1965

CASE LOAD		74
INTERVIEWS		644
Teacher	214	
Pupil	354	
Other school personnel	76	
CONSULTATIONS		371
Parents	251	
Community Agencies	120	
CASE CONFERENCES		100
School	95	
Community	5	
VISITS TO HOMES		244
VISITS TO DETENTION CENTERS		18
Youth Service Board	16	
Shirley School	2	
EVENING, SATURDAY, SUMMER VISITS TO:		38
Homes	27	
Community agencies	11	
HOME TELEPHONE CALLS RECEIVED BY S.A.C.		259
From parents	181	
From community agencies	52	
From pupils	26	
REFERRALS BY SCHOOL ADJUSTMENT COUNSELOR		33
Psychiatric	6	
Medical	1	
Psychological	5	
Child and Family Services	11	
Court	3	
Clergy	3	
Recreational agencies	2	
Probation officer	2	

Cambridge High and Latin School Graduate Follow-up Study

Class of 1965

		Number	*Per Ce*
Number of Graduates		507	
Questionnaires Sent		507	
Number of Responses		496	97.83
Further Education		197	38.85
Colleges and Universities		101	
Technical Institutes		6	
Junior Colleges		13	
Prep Schools		9	
Business Schools		38	
Nursing Schools		6	
Practical Nursing Schools		4	
Miscellaneous Schools		10	
Post Graduates (C.H.L.S.)		10	
		197	
Employed (full time)		243	47.94
Employed (part time)		4	.80
Armed Services		26	5.11
Married (at home)		13	2.57
In Portugal		1	.21
Unemployed		12	2.36
Moved (no further address)		11	2.16
	Total	507	100.00

Cambridge High and Latin School

Distribution of Graduates in Institutions of Learning

OLLEGES AND UNIVERSITIES

mherst College	1
ston College	2
ston University	4
ston State College	13
ntley College	6
ndeis University	2
own University	1
rry College	1
stern Nazarene College	1
nerson College	2
nmanuel College	2
rvard University	2
mpton Institute, Virginia	2
ly Family College	1
ass. Institute of Technology	3
ass. College of Art	2
useum of Fine Arts	1
rietta College	1
w York University	2
rtheastern University	8
berlin College, Ohio	1
io University	1
iladelphia College of the Bible	1
dcliffe College	2
gis College	1
mmons College	1
ringfield College	1
ffolk University	2
Michael's College, Vt.	1
lem State College	1
Trinity College	1
Tufts University	3
University of Bridgeport, Ct.	1
University of British Columbia	1
University of Massachusetts	24
University of North Carolina	1
University of Toronto	1

TECHNICAL INSTITUTES

Northeast Institute of Industrial Technology	2
Southern Maine Technical Institute	1
Wentworth Institute	3

JUNIOR COLLEGES

Cambridge Jr. College	3
Burdett College	1
Chamberlayne Jr. College	5
Mass. Bay Community College	4

PREP SCHOOLS

New Preparatory School	5
Chauncy Hall	1
Huntington Prep	1
Newman Prep	1
Maine Central Institute	1

NURSING SCHOOLS

Mt. Auburn Hospital	2
Newton-Wellesley Hospital	2
Lawrence Memorial Hospital	1
Cambridge City Hospital	1

PRACTICAL NURSING SCHOOLS

Fenway School of Nursing	1
Shephard Gill School of Nursing	1
Holy Ghost Hospital School of Nursing	1
World Trade School	1

BUSINESS SCHOOLS

Arlington Technical Institute	1
Aquinas Secretarial School	1
Bay State School of Business	3
Bryant and Stratton	18
Cambridge School of Business	1
Chandler School for Women	9
I B M School	1
Pierce Secretarial School	1
Robie's Secretarial School	2
Stenotype Institute of Boston	1

MISCELLANEOUS SCHOOLS

Carnegie Institute for Medical Associates	1
Cambridge School of Ballet	1
Bay State Academy	2
Butera School of Art	1
Mary Brooks School	1
Leland Powers School of Radio and TV	1
Radio Electronic Television School	1
Wildred Academy	2

POST GRADUATES

C.H.L.S.	10

National Honor Society

Employed

		Per Cent
Obtained Jobs Through School Placement Office	75	30.86
Obtained Jobs from Other Sources	168	69.14

Types of Employment

Apprentice laboratory technician	3	Library work	1
Assistant cosmetologist	1		
Audographer	1	Mail clerk	3
Assembly	3	Medical secretary	1
Accounting	4	Machine operator	2
Bookkeeper	12		
Bank teller	2	Packing	2
Billing clerk	4	Professional musician	1
		Payroll clerk	1
Cytology technician	1	Press operator	1
Comptometer operator	1		
Cook	1	Receptionist	1
Cashier	2	Research technician	1
Clerical	24		
Dental Assistant	1	Secretary	21
Dispatcher	1	Stenographer	6
Driver	1	Sales	9
		Stock clerk	3
Flexowriter operator	1	Switchboard operator	17
Foreign correspondent	1	Shipping clerk	3
Factory work	12	Store display	1
File clerk	6	Service department	1
		Soda Fountain clerk	1
Garage attendant	1	Typist	31
General Office	31	Truck driver	2
		Upholsterer	1
I B M Key Punch	13	Unknown	3
Inspector (factory)	2	Telephone repairman	1

Cambridge High and Latin School

Employers of 1965 Graduates

American Electroplating Co.	1	Charles T. Main, Inc. (engineers)	
American Science Engineer Research	1	Carr Fastener	
American Table Pad Co.	1	Cambridge Gas & Light	
Arthur D. Little Co.	1	Children's Medical Center	
Algonquin Gas Co.	1	Colony House, Inc.	
Allyn & Bacon	1	C I Designs	
Automotive Specialty	1	Coolidge Cleansers	
American Mutual Insurance Co.	1		
Atlantic Stores	1	Dewey & Almy Co.	
		Deran Confectionery	
Bookbinding Co.	1	Dr. Thomas G. Leonard	
Blauer Mfg. Co.	1	Dynatech Corp.	
Boston Army Base	1	Division of Employment Security	
B. M. Goldenberg Ins. Agency	1		
B. F. Goodrich Co.	1	E. Cambridge Savings Bank	
Benda Products	1	Employer's Mutual Ins. Co.	
Broadway Supermarket	1	E R Squibb & Sons	
Boston University	3		
Baird Atomic	2	Fawcett Oil Co.	
Bradlees	1	Fireman's Fund American Ins. Co.	
B B Chemical Co.	1	F S Webster Co.	
B. C. Morton Organization	1	Fanny Farmer's Candy	
B & T Refrigeration	1	First National Bank of Boston	
Boston Safe Deposit & Trust Co.	1	Foundation for Research on the	
Boston Insurance Co.	1	Nervous System	
Beth Israel Hospital	1	Filene's	
Brigham's	1		
		Goddess Bra	
Cambridge City Hospital	2	Guardian Bus Service	
Cambridge Trust Co.	2	Grover-Cronin's	
CAMBION	1		
Carter's Ink	1	H. J. Dowd Co.	
Chicken Delight	1	Harvard Trust Co.	
Catholic Association of Foresters	1	Hanover Ins. Co.	
City of Cambridge	5	Hyde Athletic Shoe	

rvard University	4
rvard Coop	6
J. Heinz Co.	1
lan Marsh Co.	1
n Hancock Insurance	8
Hammett Co.	1
ph Kaye Co. (const. engineers)	1
es O. Welch Co.	1
ustrial Steel	6
ng B. Moore Corp. (rubr gds)	1
fman Co. Inc.	1
dall Confectionery Co.	1
H Research	1
ar Inc.	2
P. Kennedy Hospital	1
erty Mutual Ins. Co.	10
igh Metals	1
hmere Sales	3
chell's Beauty Salon	1
ss. Institute of Technology	5
ddlesex Probate Court	1
ro Tek Electronic Co.	2
rningstar Corp.	2
ropolitan Life Ins. Co.	1
Kim Exporting Co.	1
d-Morrison Mfg. Co.	1
Cartney's Garage	1
ss. General Hospital	1
ional Casket Co.	1
ional Shawmut Bank	2
E. Merchant's Bank	1
E. Mutual Life Ins. Co.	1
v England Telephone Co.	36
Pettingill & Pear (chairs)	1
Publisher's Guild	1
One Hour Martinizing	1
Oxford Shop	1
Pitcher & Co.	1
Polaroid Corp.	5
Prudential Ins.	5
New Hampshire Ins. Co.	2
Riverside Press	2
Read Jewelers	1
Rustproofing and Metal Finishing	1
Rower Dental Supply	1
Rubber Co.	1
State Street Bank	2
Sage & Co.	1
St. Johnsbury Trucking Co.	1
Signet Club	1
Sears Roebuck	3
Swift & Co.	1
Sky Publishing Co.	1
Simplex Wire & Cable	2
Somerville Lumber Co.	1
Shea Cleansers	1
Star Mkt	2
Spaulding Co. Inc.	1
Stouffer's Restaurant	1
The Commercial Union Ins. Group	1
The Eastern Co.	1
Textile Mfg. Co.	1
The Alden Speare's Sons Co.	1
U S Steel	1
UBS Chemical	1
U S Navy Dept.	1
United Parcel Service	1
Unknown	5
Unknown	5
University Trust Co.	1
W. B. Hastings & Co.	1
West Chemical	1
Western Electric	4

1200 Beacon St. Hotel 1

Analysis of Graduates

Class of 1965

		Per Cent
GRADUATES from College Course	172	33.92
College	101	
Junior College	13	
Technical Institutes	6	
Prep Schools	9	
Nursing Schools	6	
Business Schools	3	
Miscellaneous Schools	3	
Post Graduates (C.H.L.S.)	3	
Employed (full time)	18	
Employed (part time)	2	
In Armed Services	6	
Unemployed	2	
GRADUATES from Commercial Course	334	65.88
Employed (full time)	224	
Employed (part time)	2	
Business Schools	35	
Practical Nursing Schools	4	
Post Graduates (C.H.L.S.)	7	
Miscellaneous Schools	7	
Married (at home)	13	
Armed Services	20	
In Portugal	1	
Moved	11	
Unemployed	10	
GRADUATES from Home Economics Course	1	.20
Employed (full time)	1	

Rindge Graduate Follow-up Study

Class of 1965

		Per cent
Questionnaires Sent	147	
Number of Graduates	147	
Number of Responses	140	95.23
Further Education (full time)	52	35.38
Colleges and Universities	22	
Technical Institutes	6	
Junior Colleges	3	
Prep Schools	3	
Miscellaneous Schools	5	
Post Graduates		
C.H.L.S.	3	
R.T.S.	10	
	52	
Employed (full time)	55	37.42
Armed Services	32	21.76
Unemployed	1	.68
Moved (no further address)	7	4.76
	147	100.00%

Distribution of Graduates in Institutions of Learning

COLLEGES AND UNIVERSITIES

Boston State College	1
Boston University	1
City College of San Francisco	1
Delaware State College	1
Harvard University	2
Mass. Institute of Technology	1
Northeastern University	7
Tufts University	1
University of Massachusetts	5
West Point	1
Hampton College of Pharmacy	1

JUNIOR COLLEGES

Cambridge Junior College	1
Mass. Bay Community College	2

PREP SCHOOLS

Newman Prep	3

TECHNICAL INSTITUTES

Franklin Institute	3
Wentworth Institute	3

POST GRADUATES

C.H.L.S.
R.T.S.

MISCELLANEOUS SCHOOLS

New England Linotype School
Mass. Radio School
Vesper George School of Art
Bay State Academy

National Honor Society

Rindge

Employment Distribution of Graduates

prentice pressman	1	Machine repair	1
		Mechanic	5
nk teller	1		
logical technician	1		
ok binding	2	Office work	1
shier	1		
ble splicer	1	Painter	1
		Photographic laboratory	1
fting	1	Printing	1
ctrician	2		
ctronics	2	Receiver	2
		Radio and TV technician	1
niture mover	1		
tory work	6	Store management	2
		Senior engineer	1
n worker	1	Stock clerk	3
		Salesman	2
Clerk	1	Shipper	1
llow operator	1	Truck driver	3
orer	1		
rary work	1	Unknown	2
ssenger	1		
chinist trainee	2	Woodworker	1

Special Study of College Course

		Per cent
duated from College Curriculum	48	32.70
se attending colleges or other schools:		
College	22	
Junior College	3	
Technical Institutes	6	
Prep Schools	3	
Post Graduates	4	
Armed Services	3	
Employed (full time)	7	

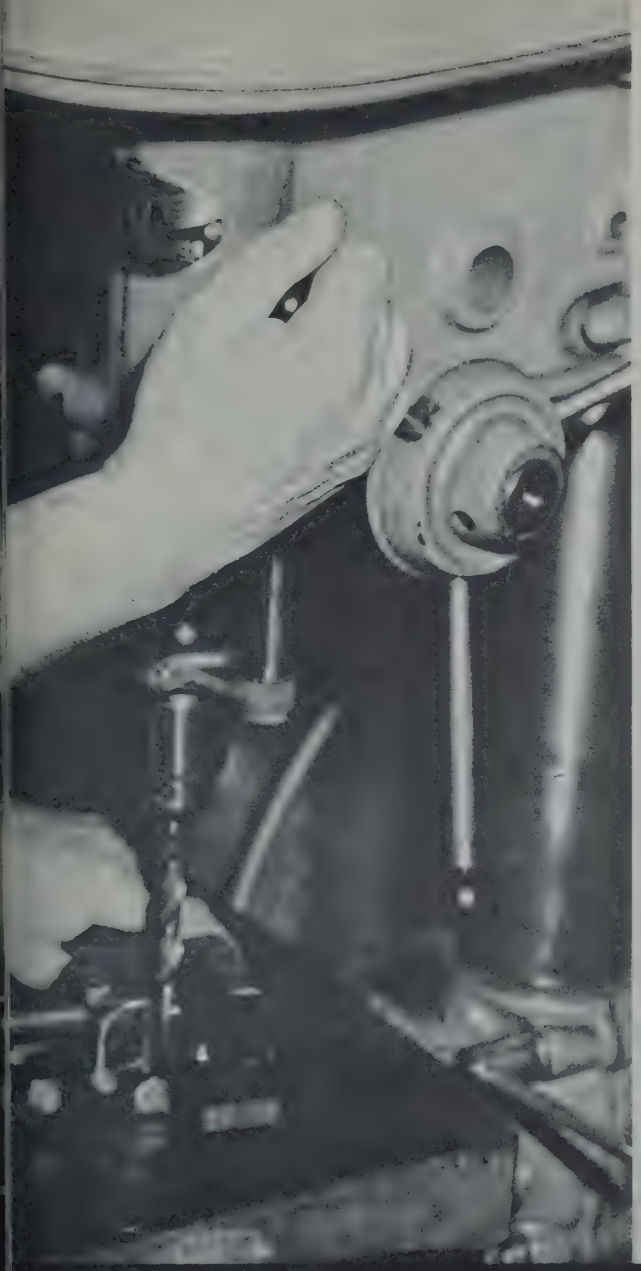
Rindge

Employers of 1965 Graduates

Allen Stationery	1	Mass. General Hospital	1
Acoustic Research	1	Murphy Hardware	1
		Mass. Institute of Technology	2
Beacon Electric Supply	1	M & M Transportation Co.	1
Bio-Research Institute Inc.	1	Mike's Atlantic Service Station	1
Block Engineering Co.	1	Middlesex County	1
		Morningstar Plastics	1
Casey Movers	1		
Cuneo Press	1	Newton Foods Inc.	1
City of Cambridge	1	N. E. Telephone Co.	1
		Nobrega's Mill End Store	1
Daniel Marr & Son Co.	1		
		Parrot's Auto Body Shop	1
E. L. Grimes Printing Co.	2	Polaroid	3
E. R. Sage Co.	1		
Elm Radio and TV	1	Riverside Press	2
Elbery Motors	1	Rosenthal Paint Corp.	1
		Reece Corp.	1
First National Stores	1		
Ferrotec, Inc.	1		
First Federal Bank of Boston	1	Shea Cleaners	1
		Stop and Shop	1
General Electric Laboratories	1		
		The Workbench	1
Henry Wolfer's Inc.	1	Tammaro & Sons Meat Co.	1
Harvard Cooperative Society	2		
Harvard University	2	Unknown	3
J. C. Helmud Inc.	2	Wm. Gens & Sons	1
K L H Research and Development	2	Zayre Dept. Store	1

Cost Analysis
School Year — September, 1964 to June, 1965

School	Salaries A-1	All Other Costs	Total
Cambridge High & Latin	$ 897,538.10	$138,227.79	$1,035,765.89
Rindge Technical	488,137.35	56,029.37	544,166.72
Agassiz	85,199.50	14,526.43	99,725.93
M. E. Fitzgerald	225,484.34	27,866.77	253,351.11
Fletcher	100,416.69	8,843.83	109,260.52
Haggerty	105,927.19	6,816.00	112,743.19
Harrington	374,576.69	25,210.94	399,787.63
Houghton	154,832.60	21,082.70	175,915.30
Abraham Lincoln	71,594.15	8,078.43	79,672.58
Longfellow	227,023.89	22,984.32	250,008.21
Morse	128,447.94	16,176.29	144,624.23
Peabody	178,932.17	22,581.70	201,513.87
Putnam	112,581.82	9,213.99	121,795.81
Roberts	217,869.31	28,767.62	246,636.93
Russell	163,339.06	25,029.04	188,368.10
Thorndike	94,661.37	9,719.30	104,380.67
Webster	142,836.07	9,255.53	152,091.60
Boy's Vocational	53,146.58	3,266.75	56,413.33
Girl's Vocational	18,707.99	2,399.82	21,107.81
Americanization	5,236.00	16.00	5,252.00
Art	71,961.76	1,295.05	73,256.81
Audio Visual Dep't.	31,666.66	9,594.56	41,261.22
Children's Museum	10,671.66		10,671.66
Health & Safety	28,733.34	209.93	28,943.27
Home Economics	27,983.07		27,983.07
Music	51,101.64	3,194.44	54,296.08
Physical Education	148,769.37	1,369.42	150,138.79
Primary Director	9,083.66	160.00	9,243.66
Substitutes	185,844.00		185,844.00
Superintendent's Office	63,555.48	13,335.33	76,890.81
Prevocational	44,120.90		44,120.90
Evening School	34,821.50	150.66	34,972.16
Custodians	398,112.67		398,112.67
Business Office	157,528.68	26,084.88	183,613.56
War Memorial	10,246.64	5,405.07	15,651.71
Bureau of Pupils' Services	79,122.25	25,441.59	104,563.84
Libraries	3,850.80	25,808.07	29,658.87
	$5,203,662.89	$568,141.62	$5,771,804.51



CAMBRIDGE PUBLIC LIBRARY

1966

Annual Report

of the SUPERINTENDENT OF SCHOOLS

Adult Education

the cambridge public schools cambridge, massachusetts

The School Calendar 1966-1967

1st Term September 8, 1966 TO December 23, 1966
2nd Term January 3, 1967 TO February 17, 1967
3rd Term February 27, 1967 TO April 14, 1967
4th Term April 24, 1967 TO June 23, 1967

1967-1968

1st Term September 7, 1967 TO December 22, 1967

School Holidays

Columbus Day; Veterans' Day; Thanksgiving Day and the day following; Washington's Birthday; Good Friday; Patriots' Day; Memorial Day; and the Seventeenth of June. If one of these holidays falls on Sunday the schools are closed on the day following.

Evening Schools

There shall be two terms of the evening schools. The schools shall open on the second Tuesday of October, and shall close one week previous to the closing of the day schools for the Christmas holidays. The second term shall begin on the first Tuesday of January except when that day falls on New Year's Day, in which case it shall begin on the following Thursday and shall continue for at least twenty-five evenings. Vacations and holidays shall be the same as in the day schools.

1966 Annual School Report

Chairman
Mayor Daniel J. Hayes, Jr.

Vice Chairman
James F. Fitzgerald, Esq.

The School Committee

January 1, 1966 to December 31, 1966

Regular Meetings of the School Committee are held on the first and third Tuesdays of each month, except July and August, at the School Committee Office, 1700 Cambridge Street.

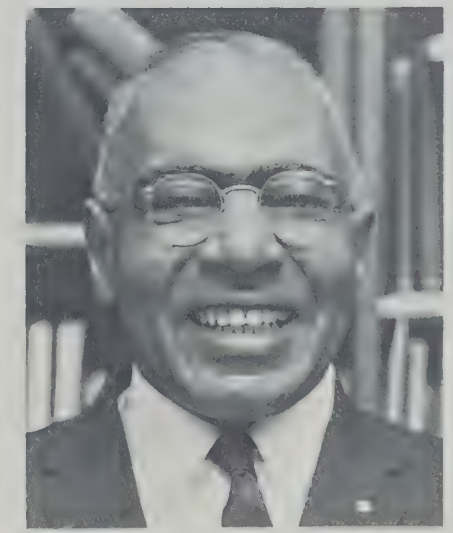
Mrs. Paul Kurt Ackermann

Francis H. Duehay

John A. P. Good, December 20, 1966

rd M. McMahon
ned December 6, 1966

George F. Olesen, Jr.



Gustave M. Solomons

Edward J. O'Connell
Secretary to the School Committee

1966 Annual Report

of the SUPERINTENDENT OF SCHOOLS

John M. Tobin Superintendent of Schools

CAMBRIDGE, MASSACHUSETTS

"The University City"

Edward A. Conley
Assistant Superintendent
of Schools

David E. Hockma
Assistant Superinten
of Schools

o the Honorable, the School Committee:

My twenty-second annual report the ninety-ninth in a series of annual eports of the Superintendent of the Cambridge Public Schools and the ne-hundred twenty-seventh of the printed reports of the School Com-ittee of Cambridge is submitted herewith.

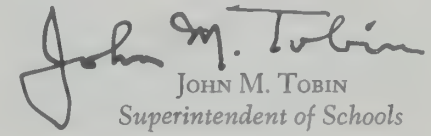
In the report to the School Committee in 1962 the Superintendent as concerned that the formal school program meets the needs of the udents in a changing world. The theme of that report was "Educa-on in Cambridge Attempts to Meet the Challenge of Change". The hool was then interested, indeed it still is, in developing curriculum hich would train youngsters to meet the challenge of automation. A chnical/vocational revolution was occurring. Our young must be ained to obtain employment, to understand the problems of their to-orrow. Their curriculum must be such that their present course of udy would make their future a secure possibility. In a very real sense is report continues this theme, it develops it to a logical future for tizens of this community over formal school age.

Educational opportunity must be always available to those who de-e or who need it, for learning must never be considered terminal terminated. This school system, I am happy to report, has for many ars attempted to encourage the residents of Cambridge of all ages continue their quest for education. Certainly adults should be en-uraged to explore new fields, to close gaps in their formal education, nd to increase their efficiency in their vocation. Our evening schools e designed to offer these opportunities. Almost 1200 residents attended ese classes this past year. It is the Superintendent's hope and plan to xpand this program in the years ahead.

With more and more leisure time becoming part of American life, edu-tional opportunity should also be provided for those who seek an ocation or for those who desire to develop a hobby. A wonderful example of this may be found in the Upholstery Class at the Rindge Evening School. Here, Tuesday and Thursday nights, many are learning this art; homes are being made more attractive. Ladies who desire to know simple basic auto mechanics, not to become experts in the field (although this could well happen), but who believe in having some knowledge of the automobile for the safety of their families, are enrolled in this same school.

Programs must also be available for adults who are new to this country. Their American dream must be allowed to grow. If these people from foreign shores are to become part of their new homeland they must learn about it; our language and our customs and our principles must be understood. These new residents are encouraged to join with us in a common community, yet, they must be encouraged to maintain their customs and mores for in this blend is the strength of this country. Our classes for the foreign born are ever increasing in number and in scope. The Superintendent is mindful that this need is growing and the staff of the School Department is even now planning for the future growth of this program.

Our adult education program is of basic concern to all of us. This report shows in capsule form our present status; this report also indicates our determination that these programs are but a beginning.



JOHN M. TOBIN
Superintendent of Schools

Rindge Evening Industrial School

The Rindge Evening Industrial School has offered for many years a great variety of vocational and avocational courses open mainly to Cambridge residents.

These courses are established and maintained through budgetary requests granted by the Cambridge School Committee in the annual budget for the Department.

By and large, course offerings reflect a demonstrated community need of the adult population for expert training in areas related to their jobs, or to provide beginning skills for those seeking positions in certain job areas. A large percentage of students, on the other hand, pursue evening industrial courses for purely avocational reasons.

Historically, Cambridge has had the vitalizing commingling of an intensive industrial area specializing in small production units of greatly diversified products and a world-respected academic community composed of Harvard University, Massachusetts Institute of Technology, Radcliffe College and Lesley College.

This unique conjunction brings into the Cambridge School Department's Adult Education classes a stimulating, diversified student body.

Side by side in a cabinet making and millwork course, for example, one would be very likely to see job carpenters, law school students, university professors, and middle-income accountants and shopkeepers. A Machine Shop course will have a Massachusetts Eye and Ear Infirmary intern exchanging ideas on similar projects with an M.I.T. graduate student.

With the exception of the Evening Elementary School, all courses in the Evening Industrial School are three hours in length for forty evenings.

Cabinet Making

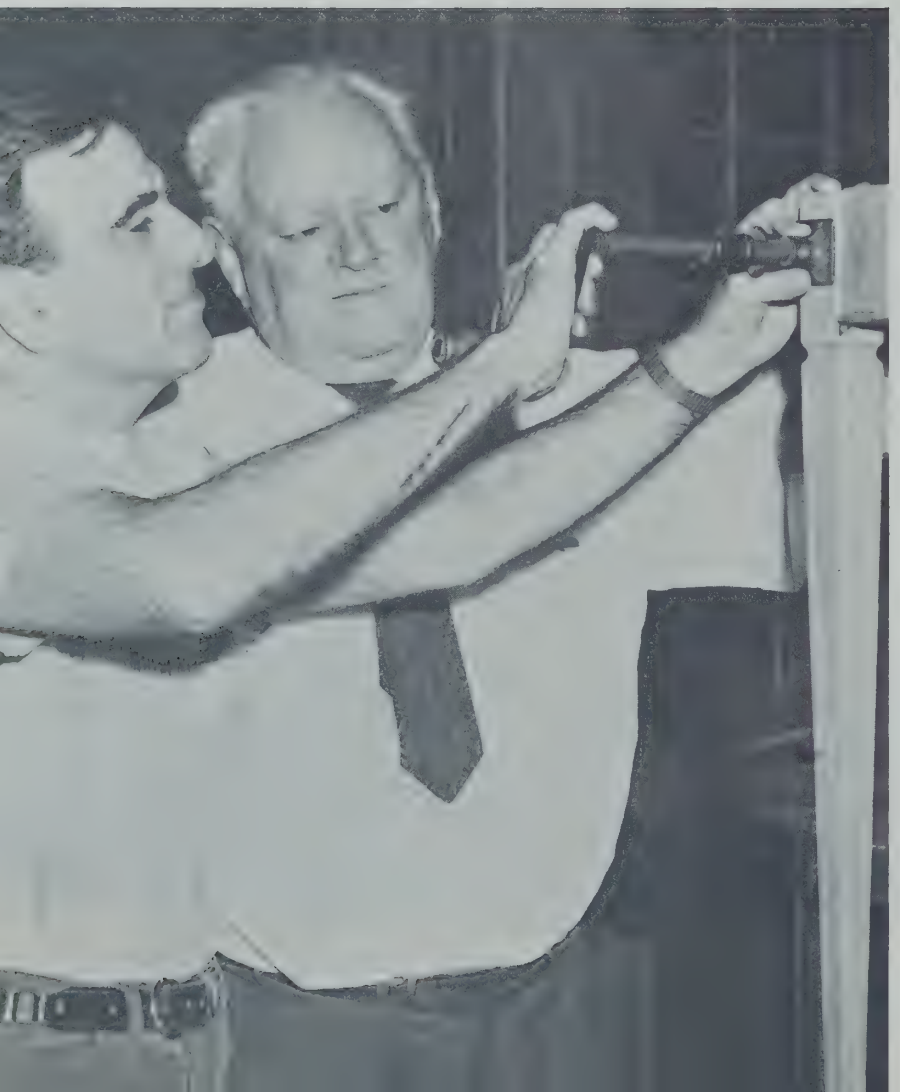
Millwork

Woodturning

Upholstering

These three courses are always heavily attended by a broad spectrum of the adult population.

Cabinet Making and Woodturning are taught on an informal basis with individual instruction at the core of the teaching process. It is desirable to have had previous experience in the woodworking area, but many students prove apt and competent without such experience.



The principal aim of the course is to improve a job income skill. The modern facilities available in the shops enable a student to go well beyond the simple essentials of woodworking and to move into the higher-paying, refined woodworking areas such as model making for industry and architectural firms.

Many students pursue cabinet making and woodworking as relaxation from the tensions of their regular jobs or professions. Homeowners who prefer to do their own repairing, remodeling and furniture building are found busy in the course learning both the skills necessary to build many items and the important safety aspects of proper use of woodworking tools.

The beneficial results of learning a skill that is related both to job income improvement and to avocational fulfillment are readily apparent to those who participate. A law school student who had been given a power saw as a Christmas gift learned how to use it and related tools in the course, and remodeled a room, complete with built-in library shelves all made in the woodworking course. A university professor was delighted to state that the course was "great fun and relaxation." He commented, also, that his appreciation of the great value to society of such skillful workers in this trade grew considerably after he had struggled for some evenings to master the tools necessary to repair a drop-leaf table.

The Furniture Upholstering Course has been an extremely popular one over the years.

From mid-October to mid-April, meeting twice a week for three hours a night, sixty class members develop the skills to repair and to rebuild furniture, or to create, from start to finish, a complete unit of furniture. A student does not necessarily need a talent, but he does need a well-motivated goal and a willingness to learn.

The purposes of the course are really as numerous as the reason each member of the course has for joining the class. Some wish to learn the basic essentials necessary to secure a job, while others are learning to improve the quality of their work in order to advance in the field of

furniture making. Such apt students frequently find occupational placement, for the course instructors are often approached by executives from large furniture shops seeking good students to work in their factories.

Many students find furniture upholstering a useful and constructive use of leisure time. Others have found that learning this skill saves them large sums of money for they can repair and rebuild their furniture at home at a small cost.

There is a wide range of professional and trade people in the class. Among them are young people who have no occupational experience, furniture shop workers, clerks, teachers, professors, attorneys, and physicians. They possess an unusual variety of skills, talents, aptitudes and interests. These individual differences create a friendly and cooperative group interested in each other's work and needs. A wonderful willingness to assist each other is displayed and the class takes great pride in the achievement of the individual.

The students are at all levels of complexity of work. They are permitted to repair a chair, rebuild a chair, or build a new chair from the frame to the finished product. There are students setting webbing, tying springs, using hair filling, and upholstering in white muslin. Still others are putting on the final covering and upholstering fabric before performing the finishing touches that complete the work satisfactorily.

Individual instruction is constantly being given. Frequently, the instructor will provide a demonstration to the entire class of an appropriate technique which benefits all.

Excellent machines are available for each task involved in upholstering. The students buy upholstery fabrics at cost, and all tools are at the disposal of the students.

The entire course is challenging and rewarding. The class membership frequently expresses amazement at the great amount of work involved in repairing or rebuilding a chair, and they have all come away with a greater appreciation for the value inherent in a custom-made article of furniture.

Radio and Television — Electricity

The Radio and T.V. course, also referred to as Electronics I and Electronics II, is designed to teach the average adult both the theory and practical aspects of Electronics from the very basics of radio reception — the crystal set — through all stages to the presently used superheterodyne receiver. After this has been accomplished, the student is able to proceed to the second year into more advanced fields of F.M., Transistorized or Solid-State receivers, High Fidelity and Stereo Amplifiers, and Television.

The course is divided into sections; Radio and Electronics I for the novice; Television and Electronics II for those who have at some time in the past taken a course in radio or basic electronics. Both sections of the course require the very minimum of three hours an evening for the entire forty nights. In addition a certain amount of home review of the theory notes is required.

A typical evening begins with either an hour of electronics theory or a short film, oriented to the subject matter being covered. This is followed by related theory for the remainder of the period. The second hour and a half is spent on practical work and theory application, ranging from how to find the actual part on a piece of equipment from electrical drawings, through the use of test equipment such as the vacuum tube volt meter, tube tester, signal generators, signal tracers, and D.C. power supplies, or the removal and replacement of parts using soldering irons or other small tools.

Students selecting the course do so for a variety of reasons. Some wish to become licensed as ham radio operators; others wish to learn ship to shore communications. While many are High Fidelity enthusiasts and Radio-T.V. repairmen, a large percentage are seeking advancement in their jobs in the electronic industry.

Annually, a substantial number of students who have completed the course report they have increased their incomes by moving into more complex and better paying electronics work or by leaving low income employment and entering electronics. Others are operating radio and television repair businesses.

Welding — Machine Shop 1 and 2 — Metallurgy

Welding is an industrial skill involving the teaching of electric arc and gas welding and cutting, with heli-arc welding also a part of the course.

Instruction embraces demonstrations, lectures on materials, and movies on welding techniques. The student is expected to learn both welding and cutting techniques for all conventional metals by one or more means.

Persons taking welding are those currently in the ironwork and building trades who are updating their abilities by learning new techniques using the most modern equipment. Over many years the course has also attracted sculptors who found it necessary to learn the art of welding in order to weld their designs in metal. Many former students in the course have moved into supervisory positions in welding shops as a result of these added skills.

Machine Shop courses are designed for both beginners and those with some training in the trade.

The course is not designed to produce an expert machine shop operator, as this takes many years of training. It is intended to train a student to pass a test in precision accuracy of machine-tooled material with good quality machine finish.

The students learn the skill by mastering blueprint reading and, under the direction of the instructor, work from raw stock to finished material.

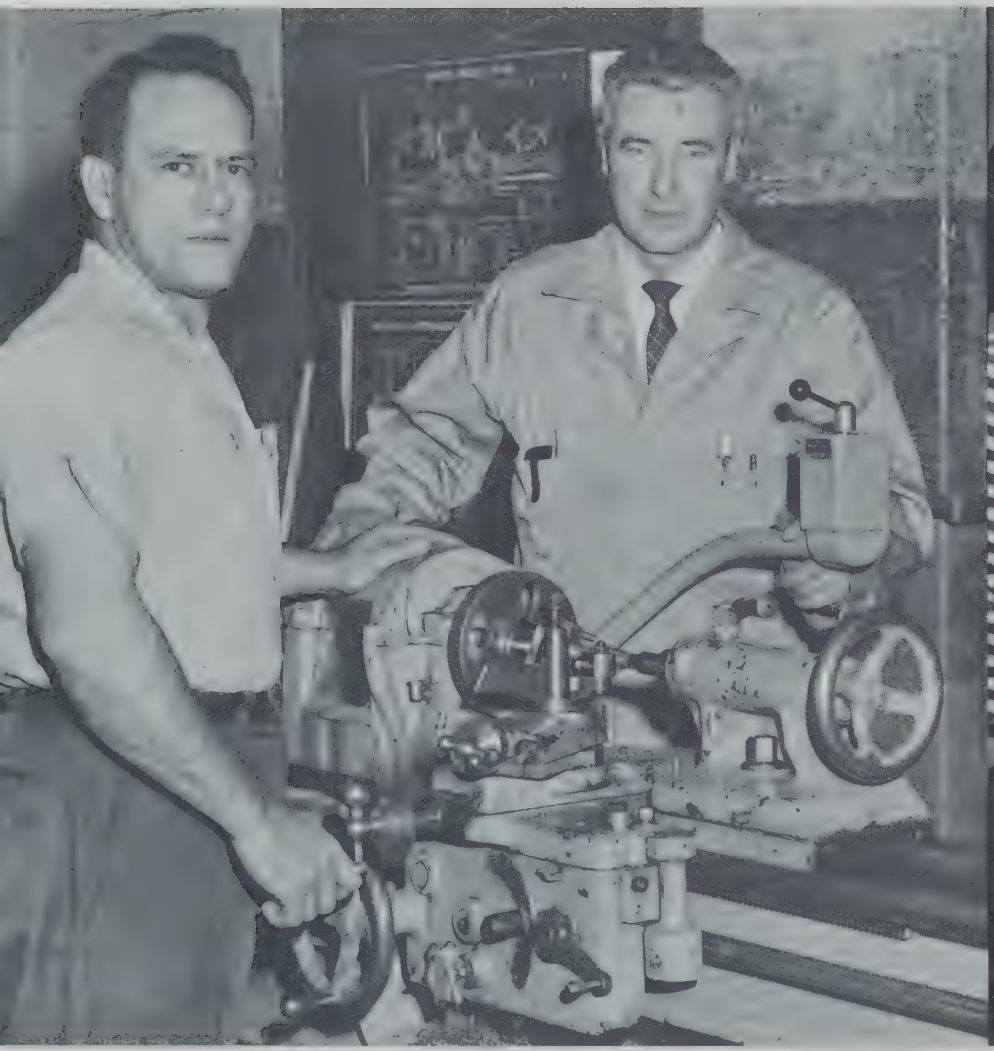
Much the same diversity of professions is found in Machine Shop courses as is found in other Evening Industrial School courses. Graduate students from local universities, men in the trade, and homeowners who enjoy working with metals attend the three-hour course for forty evenings.

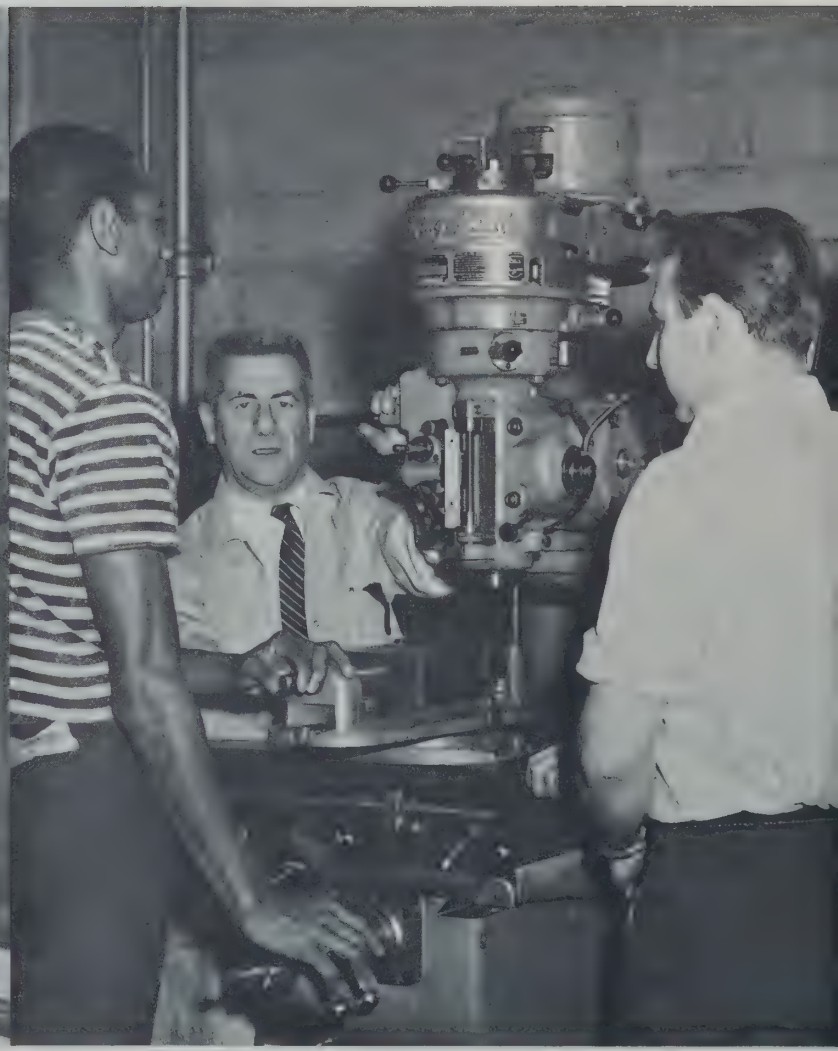
Metallurgy fundamentals forms the basis of a course in Metallurgy offered primarily for the benefit of industrial and research organizations in Cambridge.

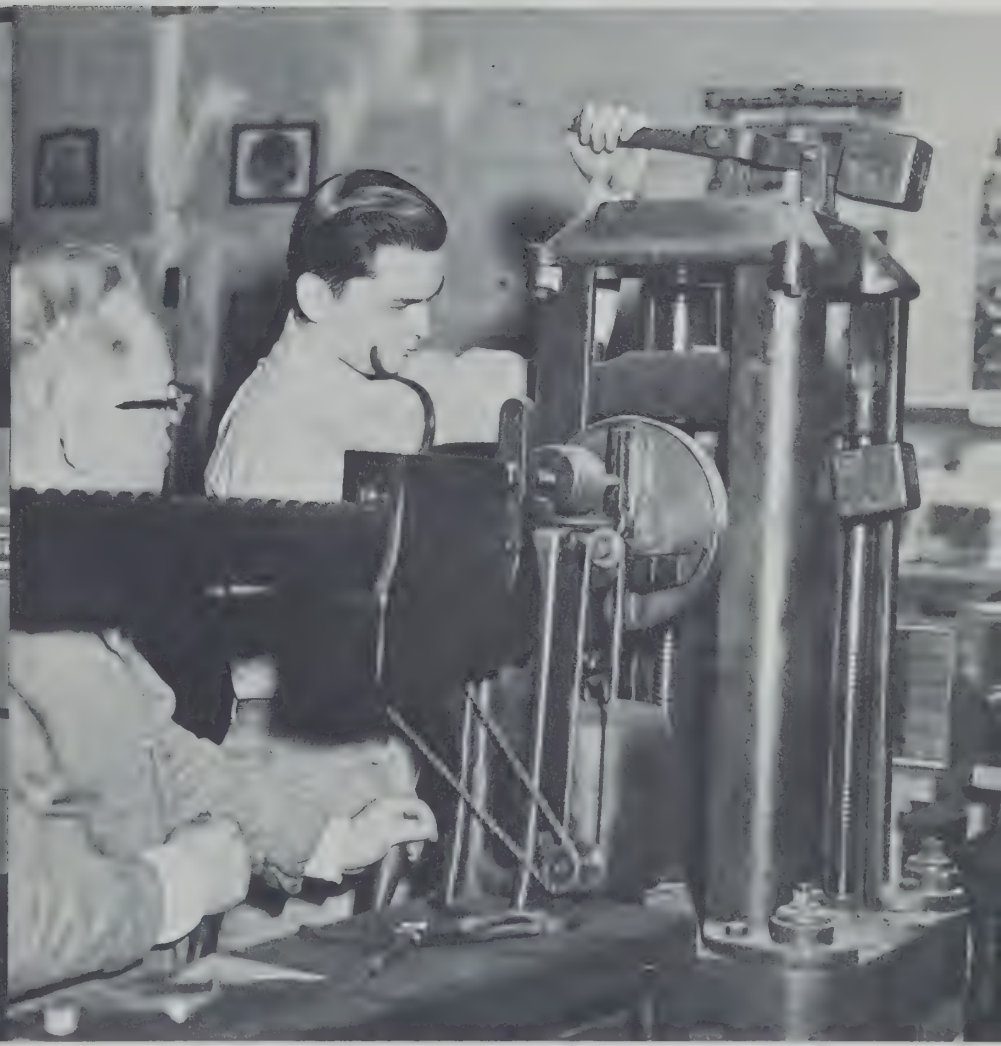
Students are referred by management personnel from the many specialized industries in the city.

The course offering covers both ferrous and nonferrous metals. A detailed discussion of subject matter precedes immediate and specific applications in the metals laboratory. Here, students heat-treat materials and study the physical and mechanical properties of such materials. Sectioning, mounting, polishing, and etching specimens for microscopic examination are integral assignments in laboratory work and study.

Industrial management people find that students are greatly increasing their knowledge of Metallurgy and are becoming more valuable assets to their companies.







Automobile Repair — Driver Education

The Automobile Repairing Course is a perennially popular one.

The course enrolls a wide range of students, both male and female. Doctors, lawyers, chemists and other professionals are found in the student body. The purpose of the course is to familiarize the student with the components of an auto, instruct him in replacement skills and minor repairs and, in general, teach proper care of the auto. Many students who show an inclination toward mechanical skills move into the auto mechanic trade. There have been many instances of young men completing the course and becoming, in military service, capable aircraft mechanics, tank mechanics, and diesel engine repairmen. The instructors frequently receive visits from grateful young men now in service, and have received many letters of thanks from all over the world. Many students did not know a clutch from a generator when they first enrolled, and now they are keeping our planes, tanks, and ships operating wherever America has a military presence.

The Driver Education Course is offered to any person under twenty-five years of age who may or may not be a licensed driver at the time of enrollment. Mainly, however, the students are young people anxious to become good drivers through qualified, state-certified driver training educators.

Each student receives thirty hours of classroom instruction through films, records and lectures. In addition, he receives six hours actual driving instruction and six hours of driving observation.

The immediate goal of the course is to instruct the student in safe driving techniques under varied driving conditions.

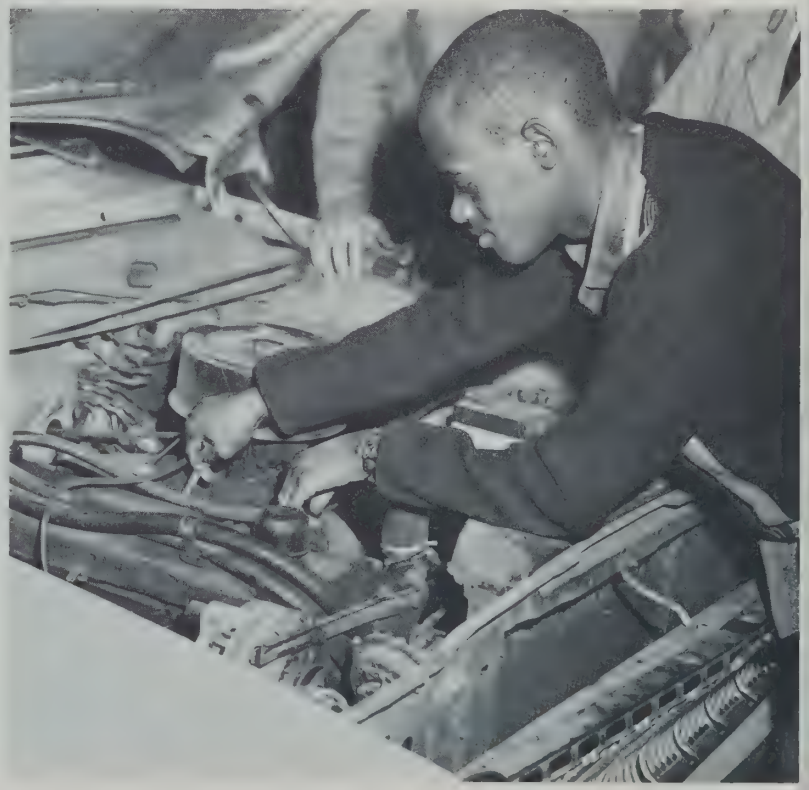
The ultimate goal of the course is to inculcate for a lifetime a sense of the importance of safe, efficient driving and pride in maintaining a high standard of driving performance and appropriate driver behavior.

An incidental but valuable reward to those who complete the course is a lower car insurance premium based upon a special group rate set up by insurance companies for those who participate in a certified Driver Education program.

Every student studies traffic citizenship, laws and regulations, driving skills, development of judgment, rules of government, automobile use, and traffic problems.

Audio-visual teaching aids are used each evening, enabling the students to view specific examples of the topics under discussion.

The Driver Education program is responsible for the record of fewer accidents for students who complete the program, when compared with drivers under 25 who have not been exposed to a Driver Training program.



Printing — Mechanical Drawing

The Printing course offers one hundred twenty hours of instruction, including offset printing experience, on three different kinds of printing machines.

For the most part, those taking the course are aiming for improvement in job income, or are taking the first step as a newcomer to the printing trade.

Many plant superintendents, desirous of having their men advance to new, more skilled positions, but finding little time to train them during work hours, have urged many of their workers to take the course.

For the student who is unfamiliar with printing, the course offers him the chance to "get his foot in the door" of a fascinating, well-paying industry which is steadily increasing its need for more skilled printers.

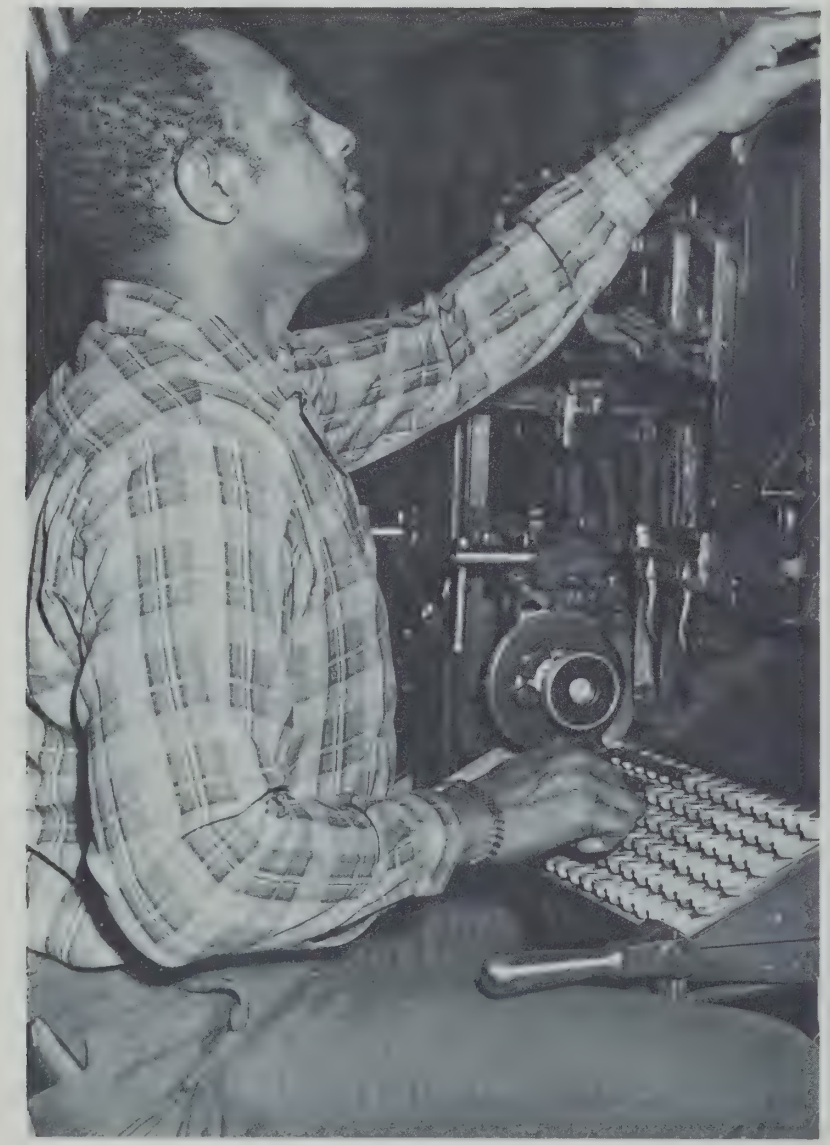
Many of the students are employed in some phase of offset lithography. There are cameramen — this is really a phase of photo-offset printing — who wish to learn what happens to their negatives after being developed. Some are general maintenance men in the industry who find no chance to develop the experience of actually "running a job," while still others are highly-skilled ink makers who are eager to learn how their art is actually utilized in the printing process.

Finally, there are those students who take the course for the sheer fascination of learning the "mysterious art" of transferring the printed image to paper or other objects.

A typical evening in the offset-printing course would find students engaged in offset stripping, offset plate-making, or offset press work.

The basic instruction involves a brief introduction to the material to be used, then the students are divided into small groups and assigned to the appropriate machines. In one class session of three hours, students are "running jobs" on a Multilith Press (a basic offset press), a Chief 22 Press (a standard large offset press in the industry), and a new Davidson Press, which is a more advanced offset press.

Students experience great satisfaction in learning the many phases of skillful use of these machines, and are offered many hours of practice in the course which is conducted always in a "shoplike" manner.



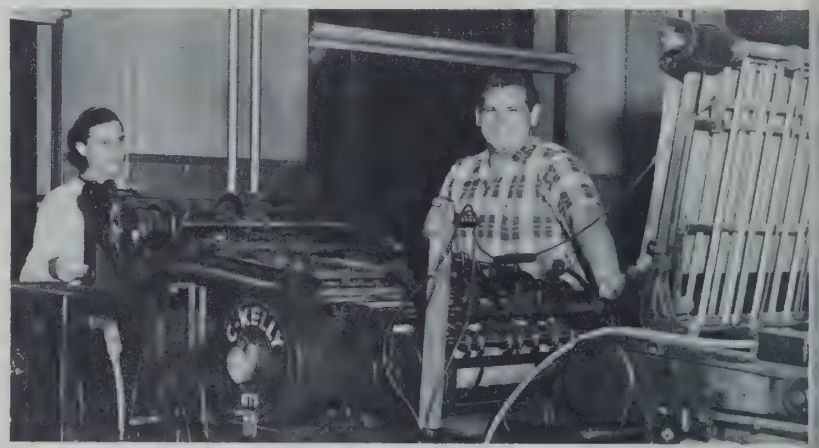
The Mechanical Drawing Class in the Evening Industrial School is a three-hour class designed to inform the student of the basic principles of visualization of an object, how to draw it, and how to interpret that drawing.

This sorely-needed skill in our modern industrial society can best be appreciated if it is realized that every idea relating to everyday objects must first be depicted on a drafting board. From this detailed drawing, whether it be a kitchen table or a sophisticated rocket soon to go into orbit, industry fashions the final article and our economy is enriched.

A wide variety of vocational and avocational needs are satisfied within the student body in this course. One student may want to learn how to draw a machine part and so take the first step in improving his job income. Another may want to draw a set of house plans in anticipation of fulfilling a dream. Still another is desirous of becoming an electronic draftsman.

Several students taking the course have obtained jobs in drafting rooms and have found that the new skills learned have enabled them to progress in these jobs.

Many students elect the course simply for the aesthetic pleasure of learning a skill which is inherently artistic, and have progressed to art courses featuring copper-plate etching.



Evening Elementary School

For many years, the Cambridge School Department has offered instruction in elementary school subjects which leads to an elementary school diploma. The class enrolls many men and women who, for one reason or another, found it necessary to leave school in their youth before completing the eighth grade of elementary education, and thus failed to receive an elementary school diploma.

Here they are offered instruction in English, arithmetic, and the social studies. These subjects are taught by regular day-school teachers skilled in the art of teaching.

Since the achieved grade levels of the students vary, teachers work with small groups. Thus, the length of time needed for completion of the school may extend over more than one year. Upon adequate completion of the course of study, as judged by the teacher, the student is certified to the evening high school where he continues his studies in the course which he elects, and which leads to an evening high school diploma.

The Evening Elementary School is financed wholly by School Department appropriations and all texts and supplies are free to the students.

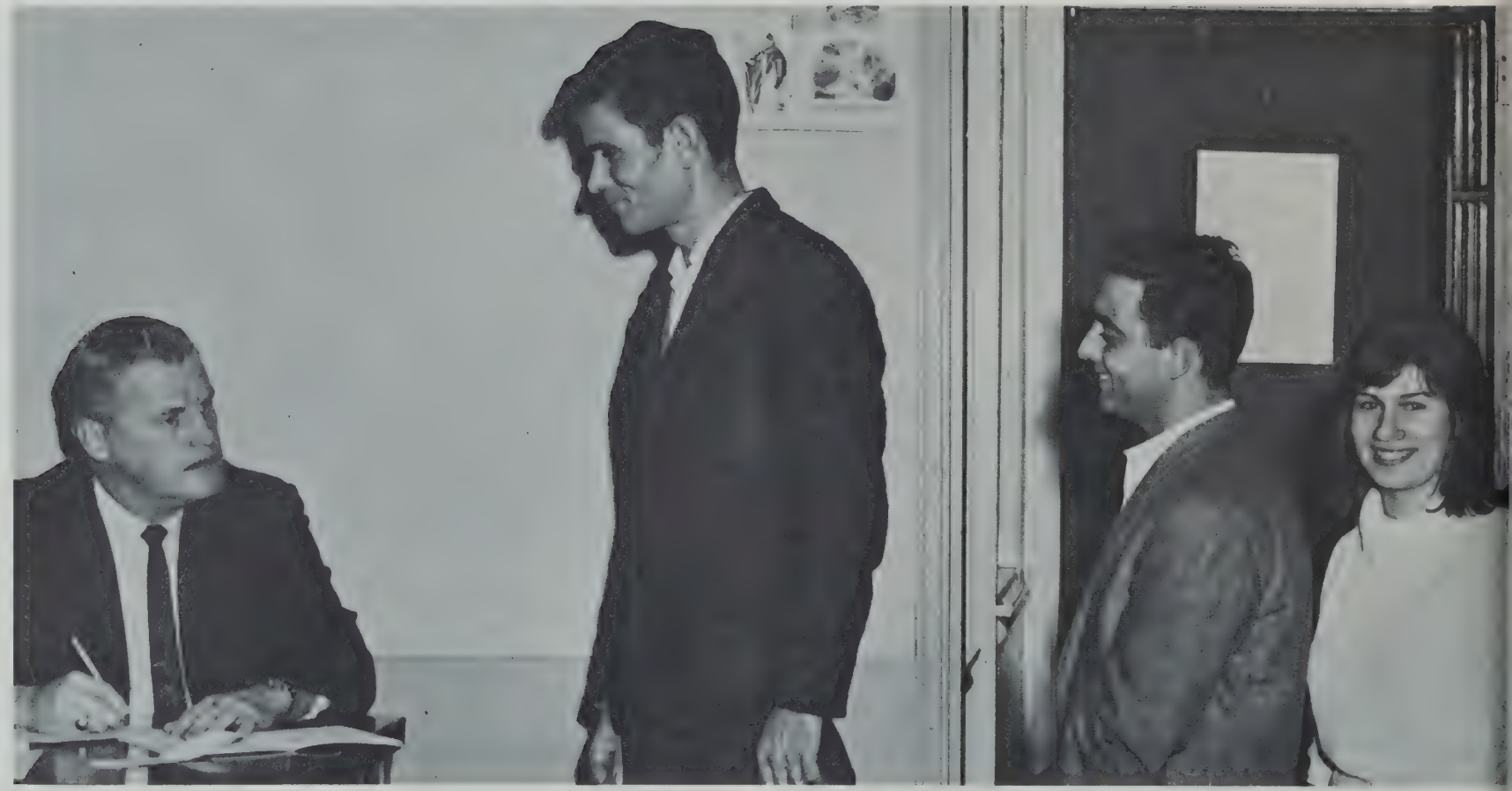
Adult Civic Education

The Adult Civic Education Program in the Cambridge Public Schools is able to trace its history some forty-five years. In 1919 the General Court of the Commonwealth passed legislation concerning immigration classes. (General Laws — Education — Chapter 295.) This was the initial legislation that dealt with the operation and support of classes that prepared immigrants for naturalization (the process of conferring the rights and privileges of a citizen). The first enactment provided state reimbursement for cities and towns for 50% of the cost of instruction in classes in English and other subjects that would fit people for citizenship. It was originally called the Adult Alien Education Program but has been changed to the Adult Civic Education Program.

The Massachusetts Legislation for Adult Civic Education over the course of years has been revised and amended. These revisions and amendments were concerned with designation of locations where classes could be conducted, age limit (18 years), the number of residents necessary in order that application for a class might be made to the School Committee, and what subject areas of instruction should be provided for students, such as English for adults, fundamental principles of government, and other subjects adopted to fit people for American citizenship. . . .

The early years of program organization and administration saw the urban and modern facilities of Cambridge dotted with classes. The liberalization of the immigration statutes resulted in an influx of aliens to our shores. Many of the industrial and business concerns of Cambridge created for the immigrant an educational atmosphere by establishing, almost overnight, classes and classrooms to facilitate the process of Americanization (the course of study for those wishing to become citizens). During the mid-twenties the American Rubber Company, Simplex Wire and Cable, the Barbour-Stockwell Company and Boston Woven Hose set aside portions of their plants for classes.

Classes were organized as well at the Holy Ghost Hospital, the Greek Orthodox Church Center and the Notre Dame Association during the twenties. Many private homes opened their doors to the immigrant



thirsty for knowledge of English and hungry for citizenship in the land of opportunity. Classes were held at homes on Putnam Avenue, Pleasant Street, Harvard Street, Western Avenue and Prince Street.

Every public school from the Haggerty in the west to the Putnam in the east was utilized. The doors of the Webster, Thorndike, Kelley, Lowell and Ellis schools swung open and welcomed the immigrant to their historic classrooms. The buildings thus became international seats of learning.

These same years saw those of Swedish descent flock to the Webster School. The Portuguese crowded the classrooms of the Thorndike. The French sought their learning at the Association of Notre Dame. The Russians learned of America and its ways at the Hebrew School. Many

of the Italians found their mental stimulation at the Haggerty School, as did the Greeks at the Greek Center. Obviously many of the Americanization classes took on a national flavor and hue. These newcomers sought the learning of English in the friendly confines of their homes, mingling with their friends and neighbors from foreign lands, which brought back memories of their younger days in the one-room school in a little village in a far distant land. Here they were learning together again in homes and classrooms, once again neighbors and fellow students.

On the other hand many classes had a definite international flavor with as many as nine different nationalities represented in one room.

What nationalities were represented in the early years of the Americanization Classes? Our answer to that question is that Cambridge is and always has been "the melting pot of America." Classes were of easy physical access to anyone who wished to take advantage of them.

The journey into the "thirties" created even greater demands upon the city for classes in English. Over sixty classes were being conducted in various parts of the city. Afternoon classes were held. Classes were established at locations on Prospect, Fayette, Lincoln, Hampshire and Standish Streets. They were about as common as the corner variety store. The early "thirties" saw the prospective citizen seek his knowledge of the principles of democracy at the Portuguese Civic League, the Cambridge Neighborhood House, St. Peter's School and the National Casket Company.

The "thirties," as well, saw our secondary schools inaugurate classes in English and Citizenship for the new arrivals to our shores. The year 1936 saw six classes in citizenship functioning at Cambridge Latin. The classes continued to flourish into the "forties." When one class of immigrants was graduated, it was followed by another always serving that area of greatest need. During the long, arduous winter of 1940, the Rindge Technical School provided eleven classes of instruction for the prospective citizen. The authorities administering the program saw fit to establish three classes for Beginners (very little understanding of the language) with approximately eighty-five students enrolled; two Intermediate classes (a basic and functional operating knowledge of English) with approximately sixty enrolled; and seven Advanced citizenship classes (immediate preparation for citizenship) with approximately two hundred and fifty enrolled. In addition to these, classes were held at many other locations.

The registration, education and preparation for citizenship continued through the "forties," "fifties" and into the "sixties." The demand for classes in English and Citizenship continued during these years, and as usual the School Department, aware of the important need, supplied the necessary personnel and materials.

Today, the Americanization Program continues to thrive. With its headquarters at 1700 Cambridge Street and the Rindge Technical School, the School Department conducts five classes at Rindge, three Beginners, one Intermediate and one Advanced Citizenship — the type of class will vary with each succeeding year, depending upon the needs of the day — every Tuesday and Thursday evening during the fall and winter months. In addition to this the School Department offers an afternoon class at Rindge for the convenience of the housewife and those temporarily unemployed every Monday and Wednesday afternoons. Classes are also conducted at the Madeira Club and the Thorndike School every Monday and Wednesday evening. This past winter classes were opened at St. Anthony's School Hall on Portland Street and at the KLH Electronic Plant in Central Square for the convenience of the people who live and work in that area. Enrollment this year is upwards of three hundred.

Every year, upon completion of the winter session, an Americanization night is held at the Rindge Technical School. The ceremonies consist of the presentation of the colors, entertainment by the students of the various classes (costumes, dances, songs and musical renditions of the native lands of the many nationalities represented in our schools), the conferring of certificates and diplomas, and the retiring of the colors. This program is well attended by citizens and prospective citizens. The Mayor, the School Committee, and the School Administration are among the many dignitaries who attend.

It is a wonderful climax to a successful year of progress for the student toward the day he becomes a citizen of these United States.

The Foreign Classes in the Cambridge Elementary Schools

It is a day near the end of August and a twelve-year-old boy arrives in Cambridge from Greece (or almost any other country you can name). He doesn't know one word of English. A week later school starts, and he is taken by a relative to register. They walk into a big, strange building, full of incomprehensible sights and sounds, and the boy wishes with all his heart that he could turn and run — and not stop till he was safe in his home village again.

He is led down the long corridors, wondering how he will ever find his way around this endless building, and who will help him, who will explain when he doesn't understand and who will listen when he can't bear to be silent any longer. Then a door opens and he is in a room with boys and girls of all ages and sizes, and the teacher says his name and points to his country on a map of the world. Then his new classmates say their names, and show him their countries — Portugal and Italy, India and Japan, Poland and Chile, Finland and Cuba, and — almost too good to be true — there is someone from Greece. There is someone to talk to, and he is not alone. There are others who are new, who don't understand English, who will make mistakes and look foolish and be afraid. Life will be bearable after all. The longing to run gradually melts away.

Needless to say, this twelve-year-old boy from Greece is imaginary. But his situation and feelings are not. He represents the hundreds of foreign children who have come to Cambridge since World War II and entered the public schools of our city.

The special classes for foreign children, as set up today in the Cambridge elementary schools, started in the fall of 1945, in response to the need of the children whose parents were once more coming to Harvard and MIT from all over the world. Their numbers were soon augmented by the children of refugees and immigrants, for whom the "Promised Land" was again opening its doors. Through the years they have kept

on coming and the list of their homelands reads like the index of an atlas: Argentina, Azores, Brazil, Bulgaria, Chile, China, Colombia, Cuba, Czechoslovakia, Dahomey, Denmark, Dominican Republic, Finland, France, Germany, Greece, Haiti, India, Indonesia, Iran, Italy, Japan, Mexico, Panama, Peru, Poland, Portugal, Puerto Rico, Samoa, Spain, Sweden, Switzerland, Turkey and the Union of South Africa, not to mention three Gypsy children, born in this country but unable to speak English.

In contrast to the one class at the Longfellow School in 1945, today there are Foreign Classes at the Agassiz, the Harrington and the Thorndike Schools, in addition to the Longfellow. Three of the schools have a morning class and an afternoon class, making a total of seven classes. The Agassiz has thirteen children in one all-day session. The Harrington has sixteen in the a.m. division and seventeen in the p.m. division. The Longfellow has twenty and sixteen, and the Thorndike has eleven and thirteen, making a total of one hundred and six.

That first class at the Longfellow School had seventeen children, from Greece, Italy, Portugal, Finland, Spain, Puerto Rico and Sweden. The Greeks were in the majority, with the Italians and Portuguese next. In the Foreign Classes today, nine countries are represented: China, Japan, India, Portugal, Greece, Panama, Poland, Italy and the Union of South Africa. The vast majority of the children come from Portugal and the Azores, but there is also a large number of Greeks.

The course of study and method of instruction used in the original class at the Longfellow School was developed by Dr. I. A. Richards and Miss Christine Gibson of Harvard University. Their interest and help have continued through the years and their books and materials are the backbone of the curriculum today. Their Direct Method, which has grown out of thirty years of experimentation and research with every kind of individual and group imaginable — from naval cadets to children, parents and grandparents — teaches the learner to connect object or act and English word with no translation coming between. Words are never taught in isolation, but always in sentences, starting with "I am here," and "You are there." After the personal pronouns and "here" and "there" come the naming patterns: "This is a table,"

"That is a desk" and then the plurals. Soon all the things in the school room can be named. Then the prepositions "in," "on," and "off" are introduced, and there is plenty of activity as pencils, books, hats and coats are put in or on and taken off. Some wag will always try to balance his pencil on his nose and every time he fails, the class has another chance to practice "off." The verbs provide more activity, and once "put," "take" and "go" are learned, there are innumerable trips to the cupboard: "I will go to the cupboard and I will take the fire truck off the shelf and I will put it on my desk." While the action is going on, the present continuous tense is practiced, and when the action is completed, the past tense describes what the speaker did. Many of the things on the shelf are the gifts of "graduates" and every now and then a child brings in a toy "for the class."

The conversation lessons are based on *English Through Pictures,* Book I, and written exercises are made up by the teacher or taken from *A First Workbook of English.* After about thirty pages of *English Through Pictures,* the older children are ready for *Learning the English Language,* Books I, II and III. They continue with the conversation lessons based on *English Through Pictures,* while using the LEL series for reading and written assignments. The younger children are introduced to reading through *First Steps in Reading English.* However, they do not have their first reading lesson until the vocabulary and sentence patterns of the first few pages of the reader have been learned as conversation. All the children are eager to read, and many of them can do so with no instruction at all — and with no idea of what they are reading. So conversation must come first. They must know what they are saying when they produce a series of English sounds, otherwise, no matter how beautifully pronounced, the sounds will remain just sounds, not language.

The Foreign Classes are always in a state of flux, for children arrive throughout the year and leave just as irregularly. How long a child stays in the class depends on how quickly he learns enough English to enable him to hold his own in the regular grade for his age. The younger a child is, the sooner he can move on, and seven- and eight-year-olds can usually be promoted into the second or third grade in

three or four months. For the older children, more time is needed. The bright ones move on in March or April, while those of average ability stay for one school year.

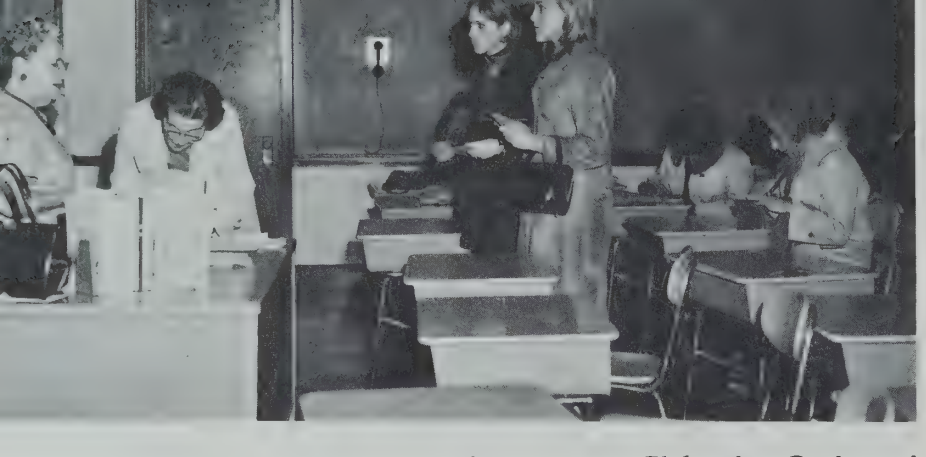
The teacher of a Foreign Class has some special rewards and some special problems. Nowhere is progress more obvious and satisfying, for the child who was a timid mute in September has quite a lot to say about home and school by Christmas. And there is that wonderful day when the child who never volunteered a word before suddenly shoots up a hand and almost bursts with eagerness to speak. And there is the reassuring sight of children of different religions and races and nationalities working and playing and growing together.

There are also many problems. The 1966-67 school year not only brought greater numbers of foreign children into the schools but it brought a concentration of certain nationalities. When a class has only one or two children of a given nationality, the desire and need to communicate with classmates provides a constant stimulus to learning English. When half or more of the class are one nationality or speak one language, this stimulus is lost. This is true for the Portuguese and Greek children today. Added to this is the fact that most of them come from non-English-speaking homes and often find part-time jobs where no English is needed.

All teachers have the problem of coping with different levels of intelligence and interest. When you add to this an age range of seven to seventeen, and different educational systems and national backgrounds, the only answer is individual or small-group instruction. But twenty children, or even fifteen, make a good many small groups, and how is a teacher to keep the other two or three or four constructively occupied while teaching one?

This year, thanks to the work of the volunteers sponsored by the Volunteer Project of the Council for Public Schools, there has been more individual and small-group instruction for the foreign children than ever before. Still more is now being planned. Age grouping is being considered, so that the high school bound teenagers can have the kind of intensive, advanced work they need, and those who plan to go to work at sixteen can get the basic language and arithmetic skills that will help them get a job. At the other end of the scale are the five- and six-year-olds, plunged straight into kindergarten or first grade, where they eventually pick up enough English to get along, but could learn faster and better with some specialized help.

So there is still much to be done. And it will be done, for Cambridge cares about its foreign children and is working hard to meet their needs.



The Cambridge Evening High School

The Cambridge Evening High School curriculum offers educational opportunities to three distinct groups.

The first group is composed of those adults who never achieved a day high school diploma. Academic courses are offered which, if completed, lead to an Evening High School diploma.

The second group may be divided into two subgroups. The first subgroup is composed of those adults who are employed in the business and commercial world, and who already possess certain skills in Stenography, Typewriting, and Business Machine operations. They seek improvement in these skills in order to advance in job opportunities. The second subgroup is made up of those who have a "felt need" in these areas, but have had no training. For these, beginning courses are offered which prepare them for work in that business skill which they elect.

The third group may, for the most part, be termed avocational students. They are free to elect any course offered, but, in the main, they are found in Oil Painting, Art, Ceramics and Practical Art Courses.

A course in Lip Reading for those suffering a hearing deficiency is offered, as well as a course in Developmental Reading.

The Cambridge Evening High School offers instruction in twenty-two courses from seven to ten in the evening for forty evenings. The School begins in mid-October and concludes in early April.

THE ACADEMIC SUBJECTS

Commercial arithmetic, algebra I, plane geometry, English I, II, III, and foreign languages comprise the academic subject matter taught.

It is these courses which enroll many students seeking an Evening High School diploma.

Commercial arithmetic is taught with a two-fold purpose; job income skill and basic consumer and household arithmetical competency. A basic understanding of whole numbers, fractions and decimals is first achieved. The students then embark on a study of three cases of percentage, interest and commission as applied to installment credit and bank interest, savings and loan accounts, and proper preparation of income tax returns.

Algebra I takes the student through a complete course of fundamentals involving monomials, polynomials, equations and factoring. Many in the source are college non-math majors who need a "brush-up" in order to pass a mid-year mathematics examination in college. Several students are seeking job improvement, hoping to use the acquired "algebraic" thinking to move into computer operation training.

Plane geometry enrolls students seeking an Evening High School diploma and those who wish simply to master a complex and fascinating subject.

The course is initially concerned with instruction in symbols, abbreviations, planes, joints, and lines. Angles are then taught and axioms are memorized. From this point, students move into proofs of theorems, congruent triangles, congruent right triangles, and parallel lines. Finally,

the student involves himself in quadrilaterals, distance, polygons, and inequalities.

After mastering the fundamentals of the course, plane geometry students apply these fundamentals in problem-solving situations.

Foreign language courses in the Evening High School are designed primarily to introduce the student to basic grammar, usage and spelling, and to develop the basic skills of writing and speaking.

The majority of students take a foreign language for enrichment and enjoyment. Still others elect a language course for diploma credits, while a sizable number are interested in gaining a rudimentary command of the language in preparation for a trip abroad.

Classes are informal and the bulk of the time is spent on oral/aural teaching. A smaller portion of time is given to reading and writing in the language.

Class goals are set at the beginning and students are motivated to contribute to the realization of these goals.

English I, II and III are always well-attended courses.

Here, too, are found those students who must complete High School English courses for credit. Many students are found in the course who have a vocational need to improve their skills in the vital art of language communication.

Each student's level of language development is ascertained and an individual program is designed. Because of the maturity of the students, great reliance is placed upon achievement goals set by each student. With the help of the teacher, the student plans a relatively long period

of work and his own zeal decides how much is eventually accomplished.

A considerable amount of literature forms the basis for English II and III, and a student is expected to do a reasonable amount of outside reading related to the course.

Developmental Reading is a relatively new course in the Evening High School.

The course is designed to increase a student's vocabulary and related reading skills. Stress is placed upon developing a wider vocabulary, since reading experts have long known that comprehension improvement is dependent upon enlarging a student's word meaning abilities.

There are numerous facets involved in mastering all the reading skills necessary to cope with today's communication "explosion."

The student is taught the art of "previewing" what he is to read. He then attempts to develop the skills of:

1. Finding the main idea in a paragraph or short article.
2. Locating and grasping the major and minor details.
3. Practicing recall of main ideas and details.
4. Developing the ability to "skim" a paragraph or article.

When these skills have been mastered, methods of improving reading speed are introduced.

Thus, like the strands of a steel cable, each skill contributes to the final "cable" of a strong and competent reading ability.

Every aid is used in the course, which meets twice weekly for two hours for forty evenings. Filmstrips, recordings, tachistoscopes (to increase reading speed), and tape recordings are available and put to use by the students.

THE BUSINESS SUBJECTS

The Evening High School offers complete courses in business skills stressing the principles of office procedures and management. The school also offers personal skills which help the person or persons who perhaps will never work in an industrial or business field. For example Personal Typewriting is taught in the second year of the subject. In the course, many college students are shown the proper way to write a thesis and to prepare bibliographies. At the same time, the students are taught proper research methods and — more important — how to put the results of such work into final form.

In the Personal Typing Class are many housewives who are pursuing the subject to help their husbands, not only with paper work, but also with the family budget, since they are able to fill jobs requiring this skill. Since Cambridge is a University city, we find wives of Harvard and M. I. T. students in the typing class. Often, too, the class enrolls wives of foreign students, some of whom have reported that this subject helps them overcome their language difficulty.

As for the vocational side of typewriting, the course offers all facets of office routine form simple letter writing to intricate statistical reporting, court reporting and other legal forms. Many times the students bring to class some problem that arose during their day's work. In this instance, the "case method" of solution is utilized.

Classes in Beginning Typewriting give the students a complete knowledge of the operation of the machine and an introduction to what is expected of a typist.

Evening School students are very fortunate because in the office equipment course they are taught the use of many of the most modern office machines beginning with the electric typewriter and proceeding to the Dictaphone, duplicating machines, simple ten key adding machines, advanced comptometers, bookkeeping machines, and the IBM Keypunch.

The Evening School also teaches beginning, advanced and speed shorthand, using the Gregg method of instruction. This important skill is still much in demand.

The student who desires to learn manual bookkeeping may achieve his goal since the school offers an excellent course in Accounting. Re-

lated courses in Business Arithmetic and Business Law are taught. In addition to their vocational usefulness, this knowledge serves the individual in preparing his income tax report. Pupils may bring personal problems to class and be helped.

The student population in Evening School Business Subjects is a cosmopolitan one. Students from countries, such as England, Scotland, France, Germany, India and many others are found in the courses. It is gratifying to note that some of these foreign students have come back for a refresher course and relate the many benefits they have gained from the courses.

The Business Course at the Evening High School is indeed a true facsimile of the business world of skills and yet serves many needs of the individual. Time spent in these courses is invaluable.

PRACTICAL ARTS SUBJECTS

Such courses as Rug Hooking, Cake Decorating, Millinery, Knitting, Sewing, Dressmaking and Tailoring, and Cooking are enthusiastically attended in the Evening High School.

Rug Hooking is a creative art which enables a student to gain an appreciation of interesting design effects, a discriminating eye for the texture of materials, and a developing sense of color balance.

Several methods of developing desired color and texture combinations are taught, and the specific work involved is then undertaken. Many students go on to design and create articles such as pillow tops, chair pads, handbags, and wall hangings.

All necessary tools are provided, and much of the material comes from students' homes. Highly inventive designs, eye pleasing and interestingly woven, are made and put on display during an annual Evening High School "Open House."

Cake Decorating is a novel and interesting course that appeals to many women. It also enrolls men in the baking industry who find a vocational need for this skill.

Students are taught the fundamental rules of the art from following recipes to elaborate design decoration on cakes.

Course participants learn types of icing, scroll, border and ruffles designs, proper pressure and hand control techniques, writing and printing with icing, use of color, striping and brush work, and careful scroll work.

Each student then plans and completes a cake decoration motif of his own choosing.

The Millinery course enrolls many women who find great pleasure in designing and creating headwear. The proper use of frames and fabric is taught which enables each student to make a professional product.

The use of prints, solid colors and novelty weaves enables students to create a diversified selection of hats and hat shapes.

At the beginning of the course, Fall and Winter hats are designed and made, while Spring and Summer styles are pursued directly after the Christmas-New Year vacation.

Hat styles are designed individually under the instructor's supervision to complement the students' facial and bone structure, hair style, and height.

Knitting is another Practical Art course which is popular.

Two and four needle knitting techniques are taught, along with interesting methods of color combinations of material. The technique, once mastered, is extended to the making of socks, sweaters, scarfs and ties.

A Basic Sewing course enrolls many women who wish to learn this important home-making skill.

With students at various levels of knowledge of sewing, instruction is individualized to cover pattern making, correct measurements, choice of appropriate materials, and basic alterations and finishing of garments.

Shift dresses of plain, inexpensive fabrics such as a blend of nylon and tweed, or dacron, are usually the starting points, since they are easy to make and include the basic zippers, facings, and hems. Blouses and skirts are next in complexity, and by the completion of the course students are exhibiting two-piece suits, or hostess robes, along with children's clothes worn by their children at the end of school "Open House."

Advanced Dressmaking and Tailoring enrolls those students who have had a basic course in dressmaking.

Good tailoring requires good cloth and careful pattern making. Thus, correct fabric choices are emphasized, and, under the instructor's careful tutelage, exact pattern making is stressed.

Dresses, suits, and coats are made which, in some cases, would retail for up to $300.00.

The Cooking course enrolls women who wish to fulfill their role as homemakers by gaining an increased knowledge and understanding of the total food preparation process.

The course of study embraces meat planning, food shopping, food storage and food preparation, food services, and basic nutrition. Along

with the development of cooking skill, the student becomes a more alert buyer/consumer in the food market.

Instructor and student planning for each of the lessons is at the core of this most successful and heavily-attended course. Students learn the total food preparation process from the preparation of shopping lists to appropriate serving techniques and table settings for their cooked foods.

LIP READING

A course in lip reading is offered two evenings a week for one hour ach evening.

The purpose of the course is to help persons with either a conductive r nerve loss in hearing to use another sense, the eye, to "read" speech n the lips.

The course is most useful to people who use hearing aids. Lip reading cts as a reliable supplement to a failing sense. Unfortunately, there re many people who can not use a hearing aid. For them, lip reading s their only means of communicating readily and is a vital skill to levelop.

A third group to whom the course is useful are those persons of normal earing who have family members with a hearing loss. Lip reading nables them to communicate more easily with those who suffer deficient earing, and offers, too, the very human understanding of the great ifficulties and tensions which such persons suffer.

Despite growing success in surgical restoration of hearing, the medical rofession recommends the continuance of lip reading skills as a vital eserve upon which patients may call if surgery is not successful.

GENERAL ART COURSE — OIL PAINTINGS — CERAMICS

Offered for three hours one evening a week, the general art course s attended by those wishing to learn the fundamentals of drawing, and y those seeking a reacquaintance with sketching and painting in general.

The basic skills of sketching a landscape, a still life, and portrait and figure drawing are taught. Offered also are instructions in pen and ink rendering, and an introduction to pastel and water color painting.

A course in general art is a prerequisite to enrollment in the oil painting course, and serves often as a confidence builder for many who undertake the more difficult medium of oils. Many students, however, prefer to remain with pastels and water colors, and a number of students have executed and sold portraits.

Oil painting is offered to the adult population as a relaxing, enjoyable and often profitable aesthetic pursuit.

The course members achieve a basic understanding of canvas preparation, correct arrangement and mixing of paints on the palette, uses of brushes and palette knife, and a knowledge of the characteristics of oil colors.

Ceramics is an interesting skill which teaches the student how to prepare, shape, decorate, and fire the pottery clay into unique color designs and useful shapes and figures.

Many people find an appeal in using pliant and responsive materials which readily permits achievement in some phase of the craft regardless of expert individual skill.

Ceramics enrolls those people who seek a pleasurable recreational activity which enables them to create something decorative and useful

School and Commerce Day

sponsored by the
following Cambridge organizations
THE CHAMBER OF COMMERCE
LIONS — KIWANIS
and ROTARY CLUBS
in co-operation with
THE CAMBRIDGE
SCHOOL DEPARTMENT

THURSDAY, OCTOBER 20
NINETEEN HUNDRED SIXTY-SIX

Program

LESLIE L. CLEVELAND AUDITORIUM
CAMBRIDGE HIGH and LATIN SCHOOL

CHAIRMAN
JOSEPH W. GIBSON, *President of the Cambridge Chamber of Commerce*

SPEAKERS
HONORABLE DANIEL J. HAYES, JR., *Mayor of Cambridge*
HONORABLE JOSEPH A. DeGUGLIELMO, *City Manager*
JOHN M. TOBIN, *Superintendent of Schools*
GALE FARIA, *President of the Commercial Honor Society*
Cambridge High and Latin School
AL NEWTON, *President of the Senior Class*
Rindge Technical School

GUESTS
RAYMOND L. PROULX, *President of the Lions Club of Cambriage*
ROBERT TONIS, *President of the Kiwanis Club of Cambridge*
CHARLES J. FERGUSON, *President of the Rotary Club of Cambridge*

EDWARD A. CONLEY, *Assistant Superintendent of Schools*
DAVID E. HOCKMAN, *Assistant Superintendent of Schools*

RAYMOND G. D'ARCY, *Headmaster, Cambridge High and Latin School*
ROBERT R. SWEENEY, *Headmaster, Rindge Technical School*

RUTH F. BOLAND, *Director of the Bureau of Pupil Services*

Comments from Industrialists and Educators

The PRESIDENT of the CHAMBER OF COMMERCE

"With the new techniques and scientific discoveries and with the demand for particular skills, School and Commerce Day deserves the full support of the entire community. Our youth is impressed at the complexity, mechanics and organization required in modern business and industry. Cambridge is a 'City of Opportunity'."

Joseph W. Gibson

The MAYOR

"As the Mayor of Cambridge, I offer my full support to School and Commerce Day. The opportunities given our students today afford them a wealth of knowledge which they may not otherwise experience without this spirit of cooperation between industry and education. I endorse the premise of School and Commerce Day and trust each participant will realize the values from this program."

Daniel J. Hayes, Jr.

The CITY MANAGER

"With the ever changing scene in Cambridge, the result of constant growth and development of its industry, educational institutions and laboratories, School and Commerce Day affords an excellent opportunity to the youth of Cambridge to become aware of the many opportunities of this dynamic city. As City Manager I am deeply concerned in nurturing this growth and development. I am proud of Cambridge."

Joseph A. DeGuglielmo

The SUPERINTENDENT of SCHOOLS

"The vast majority of public school pupils enter business occupations and our teachers appreciate the opportunity which School and Commerce Day offers to increase the understanding of the pupils of the American economics system, of the organizational and administrative methods which make it function, and of the impact of economic factors on the lives of our future citizens now in our classrooms!"

John M. Tobin

The PRESIDENT of the KIWANIS CLUB

"School and Commerce Day is an excellent way of demonstrating to our youth the deep concern and interest business has for the community. Our youth is impressed with the Kiwanis spirit of contribution and active leadership in community affairs. This augurs well for the City of Cambridge as a city that cares."

Robert Tonis

The PRESIDENT of the LIONS CLUB

"School and Commerce Day is unique in that it helps the youth of our high schools to formulate their plans for the educational and vocational future. It establishes a rapport between school and industry and our educational institutions that enables Cambridge to remain a dynamic community."

Raymond L. Proulx

The PRESIDENT of the ROTARY CLUB

"In deciding a future career it is essential that our students see at first hand the skill, preparation and training needed to find their place in society. It is a great incentive for each individual to develop his potential to its highest degree. School and Commerce Day thus makes an important contribution to the stimulating and interesting city of Cambridge."

Charles J. Ferguson

Participating Concerns

American Biltrite Rubber Company,
Boston Woven Hose & Rubber Division
Baird-Atomic, Inc.
The Blanchard Machine Company
Div. Pneumo-Dynamics Corp.
Cabot Corporation
Cambridge Association of Insurance Agents
Cambridge Chronicle-Sun
Cambridge Electric Light Company
Cambridge Gas Company
Cambridge Mental Health Association
Cambridge Police Department
Cambridge Trust Company
Cambridgeport Savings Bank
Charter House Motor Hotel

County Bank and Trust Company
The Cuneo Press of New England, Inc.
Francis H. Curtin Insurance Agency, Inc.
W. R. Grace & Co., Inc.
Dewey and Almy Chemical Division
Harvard Cooperative Society
Harvard Trust Company
Harvard University
Holiday Inn of Cambridge
Hotel Continental
Houghton Mifflin Co.,
The Riverside Press
International Business Machines Corporation
Lechmere Sales Co.
Massachusetts Institute of Technology
Mount Auburn Hospital
NEGEA Service Corporation
New England Telephone & Telegraph Company
Polaroid Corporation
Porter Chevrolet, Inc.
Sears, Roebuck and Co.
Sheraton Commander Hotel
Simplex Wire & Cable Co.
U. B. S. Chemical Co.
Div. of A. E. Staley Manufacturing Co., Inc.
James O. Welch Co.,
Div. of National Biscuit Company
A. O. Wilson Structural Co., Inc.
F. W. Woolworth Company

GENERAL COMMITTEE

Joseph W. Gibson, *Chairman*

Ruth F. Boland
Richard T. Colgan
Charles J. Ferguson
Paul J. Murphy
Raymond L. Proulx
Robert Tonis

Frank H. Townsend

CAMBRIDGE SCHOOL COMMITTEE

His Honor, MAYOR DANIEL J. HAYES, JR., *Chairman*

JAMES F. FITZGERALD, *Esq., Vice Chairman*

MRS. PAUL KURT ACKERMANN

FRANCIS H. DUEHAY

EDWARD M. McMAHON

GEORGE F. OLESEN, JR.

GUSTAVE M. SOLOMONS

JOHN M. TOBIN, *Superintendent of Schools*

EDWARD A. CONLEY, *Assistant Superintendent of Schools*

DAVID E. HOCKMAN, *Assistant Superintendent of Schools*

Statistical Tables

CAMBRIDGE

HISTORIC EDUCATIONAL INDUSTRIAL

Population: 100,000 **Area: 6¼ sq. miles**

Government: City Manager

CAMBRIDGE PUBLIC SCHOOLS

Through its classrooms, playgrounds, and clinics, where dedicated men and women are employing the best modern equipment and methods the Cambridge School System works for all its citizens, young and old.

The Schools:

1. Putnam School
2. Thorndike School
3. Harrington School
4. Fletcher School
5. Roberts School
6. Webster School
7. Morse School
8. Houghton School
9. Longfellow School
10. Agassiz School
11. Peabody School
12. Lincoln School
13. Fitzgerald School
14. Russell School
15. Haggerty School
16. High and Latin
17. Rindge Technical Vocational School for Boys
18. Vocational School for Girls

Cambridge

CHARLES RIVER
CHARLES RIVER
MASSACHUSETTS AVE
MEMORIAL DR
STATE
BROADWAY
HARVARD
GREEN
FRANKLIN
MAIN
PLEASANT
CHESTNUT
HENRY
HAMILTON
ALSTON
NATIONAL
LOPEZ
PACIFIC
EMILY
ALBANY
DENNISON
BINNEY
WADSWORTH
BOLTON
BRATTLE
HOLYOKE
MT AUBURN
CAMBRIDGE
PROSPECT
QUINCY
ESSEX
AUSTIN
WINDSOR
1
2
3
4
5
6
7
8
9
10
16
17

Ages

DISTRIBUTION OF PUPILS BY AGE AND GRADE

Grade	Sex	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Over 21	Totals
Kdgn.	M	198	327	9																	534
	F	208	293	8	1																510
I	M		142	269	68	6															485
	F		159	254	47																460
II	M			93	238	76	6	3													416
	F			109	213	35	1	1													359
III	M				76	221	80	12	2												391
	F				109	235	63	8	1												416
IV	M					87	226	86	25	1											425
	F					119	218	64	12	2											415
V	M						72	206	95	34	5	2									414
	F						113	172	58	18	1										362
VI	M							70	191	76	29	9									375
	F							89	192	70	12	6									369
VII	M								72	162	88	29	10		1						362
	F								98	172	45	20	4								339
VIII	M									71	170	71	25	1							338
	F									95	164	58	16	2							335
IX	M										91	205	108	35	8	2					449
	F									3	112	201	60	29	3						408
X	M											105	225	87	37	8	1	1			464
	F										3	113	185	59	13	4	1		1		379
XI	M											1	93	191	73	31	11	1			401
	F												113	146	54	17	4	1			335
XII	M												1	76	169	73	27	4	3	1	354
	F													113	145	30	4	1	1		294
P.G.	M														5	9	5				19
	F														1	5	1				7
Voc. Schs.	M											22	34	17	3		2				78
	F											15	18	2	1						36
Ungraded	M			1	13	7	20	16	21	15	28	15	7		1	1					145
	F			4	8	8	11	15	12	7	13	14	5	2	1		1				101
Totals	M	198	469	372	395	397	404	393	406	359	411	459	503	407	297	124	46	6	3	1	5,650
	F	208	452	375	378	397	406	349	373	367	350	427	401	353	218	56	11	2	2		5,125
																			Grand Total		10,775

AGE GROUPS

5 years or over and under 7
Boys 841 Girls 827 Total 1,668

7 years or over and under 16
Boys 3,727 Girls 3,448 Total 7,175

Number of Pupils in the Grammar Schools

December, 1966

Grade	Boys	Girls	Total
Eighth	326	337	663
Seventh	362	337	699
Sixth	370	366	736
Fifth	403	366	769
Fourth	411	407	818
Total	1872	1813	3685
Ungraded	159	100	259
Total	2031	1913	3944

Number of Pupils in the Primary Schools

December, 1966

Grade	Boys	Girls	Total
Third	389	392	781
Second	398	343	741
First	476	463	939
Total			1047

Number of Pupils in the Kindergarten

December 1966

Boys	527
Girls	520
Total	1047

1966 Class Statistics

Enrollment Chart by Grades

October 1, 1966

Grade	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
I	998	1,046	1,066	1,086	1,102	1,064	1,012	1,020	919	958
II	867	886	887	904	894	943	931	900	886	755
III	821	817	848	851	877	850	887	887	873	795
IV	838	797	822	808	812	809	786	852	839	819
V	858	838	763	822	799	784	766	737	765	785
VI	831	836	817	759	809	769	748	758	712	742
VII	662	791	804	798	746	757	747	701	698	700
VIII	655	635	736	740	720	694	703	738	656	674
IX	796	772	693	887	981	1,000	897	908	852	828
X	805	775	742	661	852	888	903	795	864	819
XI	639	749	724	724	573	727	751	796	748	720
XII	466	549	618	606	541	521	699	721	720	641
P.G.	23	21	15	17	12	20	30	37	35	26
Ungraded		148	168	126	196	195	227	250	219	266

Number of Pupils in the High and Vocational Schools

Grade	IX	X	XI	XII	P.G.	Total
High and Latin	683	622	557	480	24	2366
Rindge Technical	165	197	163	161	2	688
Boys' Vocational	Ungraded					75
Girls' Vocational	Ungraded					36

Cost Analysis

School Year—September, 1965 to June, 1966

School	Salaries A-1	All Other Costs	Total
Cambridge High & Latin	$ 870,448.86	$171,155.65	$1,041,604.51
Rindge Technical	467,352.08	66,728.57	534,080.65
Agassiz	88,931.57	8,160.98	97,092.55
M. E. Fitzgerald	253,097.95	32,405.34	285,503.29
Fletcher	120,080.17	17,281.25	137,361.42
Haggerty	91,850.40	9,422.00	101,272.40
Harrington	366,436.13	31,409.64	397,845.77
Houghton	185,552.40	12,723.35	198,275.75
Abraham Lincoln	69,089.82	8,011.63	77,101.45
Longfellow	257,802.19	17,237.10	275,039.29
Morse	155,538.88	18,187.89	173,726.77
Peabody	184,903.21	24,221.59	209,124.80
Putnam	115,076.47	10,820.44	125,896.91
Roberts	213,434.74	25,031.98	238,466.72
Russell	157,651.49	16,797.78	174,449.27
Thorndike	111,806.93	12,381.81	124,188.74
Webster	144,777.14	13,687.90	158,465.04
Boy's Vocational	46,517.32	6,150.72	52,668.04
Girl's Vocational	19,872.96	7,236.66	27,109.62
Art	68,301.58		68,301.58
Audio Visual	31,920.00	9,755.52	41,675.52
Health & Safety	28,959.97	308.62	29,268.59
Music	52,375.41	3,479.89	55,855.30
Physical Education	154,927.76	886.61	155,814.37
Primary Director	11,760.00		11,760.00
Substitutes	210,890.00		210,890.00
Superintendent's Office	88,615.07	9,922,24	98,537.31
Prevocational	46,399.85		46,399.85
Evening School	41,580.64	3,149.30	44,729.94
Custodians	402,929.25	21,463.49	424,392.74
Business Office	162,507.73	10,461.58	172,969.31
War Memorial	10,299.97	5,103.62	15,403.59
Bureau of Pupils' Services	112,841.82	29,597.59	142,439.41
Libraries	5,517.00	43,094.50	48,611.50
	$5,350,046.76	$646,275.24	$5,996,322.00